



Truro Board of Health

Tuesday July 16, 2024 at 4:30 PM

Truro Board of Health Notice of Regular (Hybrid) Meeting

Meeting will open at 4:30 PM in the Select Board Chambers at Truro Town Hall on the 2nd floor.
The Truro Town Hall is located at 24 Town Hall Road

This will be a hybrid meeting (in-person and remote access). Citizens in Truro can view the meeting on Channel 8 and on the homepage of the Town of Truro website on the "Truro TV Channel 8" button found under "Helpful Links". Once the meeting has started, click on the green "Watch" button in the upper right of the page. **To join the meeting by phone or to provide comment during the meeting, please call-in toll free at 1-305-224-1968 and enter the following Meeting ID when prompted: Meeting ID: 884 7580 5887** To join this Zoom meeting from your computer, tablet or smartphone enter <https://us02web.zoom.us/j/88475805887> Please note that there may be a slight delay between the meeting and the live-stream (and television broadcast).

If you are watching the meeting and calling in, please lower the volume on your computer or television during public comment so that you may be heard clearly. We ask that you identify yourself when calling in; citizens may also provide public comment for this meeting by emailing the Health Agent at ebecbe@truro-ma.gov with your comments.

I. PUBLIC COMMENT Please note that the Commonwealth's Open Meeting Law limits any discussion by members of the Board of an issue raised to whether that issue should be placed on a future agenda

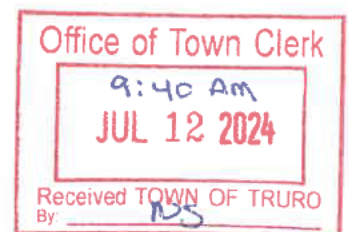
II. AGENDA ITEMS

1. **Public Hearing regarding tobacco sales violation** – 435 Rte 6 Head of the Meadow Citgo Station
2. **Discussion: Request for a waiver of Time/ACO:** 599 Shore Rd, Brice and Michelle McKane
3. **Appeal of Health Agents Decision:** 2 Pine Ridge End, Marcia Medeiros Life Estate- re: upgrade of non-conforming system *(continued from 6/18/2024)*
4. **Title 5 local upgrade requests and Local BoH regulations variance requests:** 2 Adams Way, Adam Luster & Edwidge Yingling
5. **Water Resources report**

III. MINUTES

IV. REPORTS

Report of the Chair
Health Agent's Report





TOWN OF TRURO

P.O. Box 2030, Truro, MA 02666

Tel: 508-349-7004, Fax: 508-349-5505

June 25, 2024

Keith Morris, Manager
Head of the Meadow –Citgo
d/b/a Cape Cod Oil
PO Box 993
Provincetown, MA 02657

RE: Notice of Violation, Head of the Meadow Citgo Station, 435 Rt. 6 (map 36 parcel 169) by sale of cigarettes to a minor

Dear Mr. Morris:

Please find enclosed details regarding a violation of State and local regulations prohibiting the sale of cigarettes to minors, that occurred on June 11, 2024 at your place of business located at 435 Route 6, the Head of the Meadow Citgo Station.

This violation was documented under the compliance check program of the Barnstable County Department of Health and the Environment. The sale of cigarettes or other tobacco products to a minor violates Chapter 270, Section 6 of the Massachusetts General Laws and Section XI, Article 5 of the Truro Board of Health Tobacco Control Regulations. The violation cited carries with it a fine of \$1000 for the first offense. The fine may be paid at the Town Clerks office located in the Truro Town Hall at 24 Town Hall Road, Tuesday-Friday 8 AM to 4 PM.

In accordance with the Truro Board of Health regulations, we have scheduled a hearing with the Truro Board of Health at their July 16, 2024, meeting at which time they will discuss the violation and any previous violations and consider whether to suspend or revoke your tobacco sales permit. A Notice of Intent for the hearing to revoke or suspend your permit is enclosed.

Sincerely,

Emily Beebe, RS
Health Agent

Cc: Truro Board of Health
BCDHE Tobacco Control Division



TOWN OF TRURO

P.O. Box 2030, Truro, MA 02666

Tel: 508-349-7004 Fax: 508-349-5505

June 25, 2024

Keith Morris, Manager
Head of the Meadow –Citgo
d/b/a Cape Cod Oil
PO Box 993
Provincetown, MA 02657-0993

**RE: Notice of intent to suspend permit to sell tobacco, Head of the Meadow Citgo Station,
435 Rt. 6 (map 36 parcel 169)**

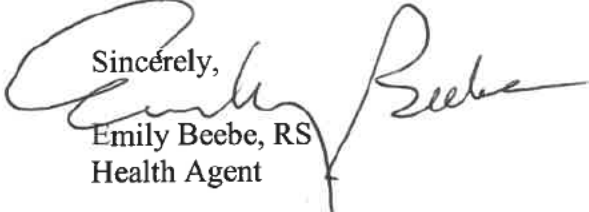
Dear Mr. Morris:

Your attendance at the July 16, 2024, Board of Health meeting is required to discuss this violation and previous violations of MGL 270, Section 6 and Section XI, Article 5 of the Truro Board of Health Tobacco Control Regulations. You will be given an opportunity to be heard regarding this matter. If the Board of Health finds that a violation of this regulation occurred, they may consider revocation, or, suspension of your tobacco sales permit for up to thirty (30) consecutive business days. After the hearing you will be notified of the Board of Health's decision and the reasons therefor in writing.

If the Board of Health suspends or revokes the Tobacco Product Sales Permit all tobacco products, as defined herein, shall be removed from the retail establishment upon suspension or revocation of the Tobacco Product Sales Permit. Failure to remove all tobacco products, as defined herein, shall constitute a separate violation of this regulation.

The meeting starts at 4:30 p.m. in the Selectmen's Chambers, 2nd floor, Town Hall, 24 Town Hall Road, Truro.

Sincerely,


Emily Beebe, RS
Health Agent

Cc: Truro Board of Health
BCDHE Tobacco Control Division

MTCP ID: _____

Tobacco Compliance Check Form**Section 1:****Establishment**

Name: Shell

Address: 435 Rte 6

City: Truro Zip Code: 02666

Type of Establishment: ☒ Chain ☐ Independent ☐ Not Known

Survey Participants

ID of Purchaser: 26

Age: ☐ 16 ☐ 17 ☒ 18

Sex: ☒ Male ☐ Female

Name of Adult Supervisor: BC

Time of Check: 4:23 am ☐ pm ☒

Date of Check: 6/11/24

Day of the Week: ☐ Mon ☐ Tues ☐ Wed
☐ Thurs ☐ Fri ☐ Sat ☐ Sun

Style of Establishment (Check Only One):

<input type="checkbox"/> Convenience Store	<input type="checkbox"/> Grocery Store	<input type="checkbox"/> Bar
<input type="checkbox"/> Department Store	<input type="checkbox"/> Liquor Store	<input type="checkbox"/> Private Club (VFW, Legion, etc.)
<input checked="" type="checkbox"/> Gas Station Only	<input type="checkbox"/> Pharmacy/Drug Store	<input type="checkbox"/> Restaurant
<input type="checkbox"/> Gas Mini-Mart	<input type="checkbox"/> Other (bowling alley, golf club etc.)	<input type="checkbox"/> Tobacconist

Section 2:**Was Compliance Check completed?** Yes ☒ No ☐

If Yes please continue on to the next question, if No please skip this section and go to section 3.

How was tobacco marketed?

- ☒ Over-the-counter; youth asks the clerk for the product.
- ☐ From a vending machine with a lockout device.
- ☐ Other Describe: _____

Was the Purchaser asked for ID?

Yes ☐ No ☒

Was this an ID-based check?

Yes ☐ No ☒

Was the Purchaser asked his/her age?

Yes ☐ No ☒Sex of Clerk: Male ☒ Female ☐Approximate age of clerk: ☐ Teen ☐ Young Adult ☒ Adult ☐ Older Adult

Type of tobacco asked for:

☒ Cigarettes Brand of cigarettes asked for: Long HAIR ☒ Marlboro ☐ Newport ☐ Other: _____

☐ Chew/Dip ☐ Cigars ☐ E-Cigarettes ☐ Other _____ Brand: _____

Was the product requested flavored (NOT Tobacco or menthol)? Yes ☐ No ☒**Was the sale made?** Yes ☒ No ☐If "Yes" how much did the product cost: \$13.81 Was a receipt given? Yes ☐ No ☒Purchaser made payment using: ☐ \$1 bills ☐ \$5 bill(s) ☐ \$5 bill and \$1 bills/or change ☒ \$10 bill(s) ☐ \$20 bill ☐ change**Section 3:**

If the youth did not enter the premises or did not attempt to purchase tobacco products please indicate why:

<input type="checkbox"/> Out of Business	<input type="checkbox"/> Temp. long term closure	<input type="checkbox"/> In operation, closed at time of visit	<input type="checkbox"/> Drive thru only
<input type="checkbox"/> Does not sell tobacco	<input type="checkbox"/> Unlocatable	<input type="checkbox"/> Unsafe to access	<input type="checkbox"/> Tobacco out of stock
<input type="checkbox"/> Inaccessible by youth	<input type="checkbox"/> Wholesale only/cartons	<input type="checkbox"/> Presence of police	<input type="checkbox"/> Permit Suspended
<input type="checkbox"/> Private club/personal residence	<input type="checkbox"/> Machine broken	<input type="checkbox"/> Youth inspector knows salesperson	<input type="checkbox"/> Other
		<input type="checkbox"/> "Don't sell" but tobacco seen in store/has permit	

Part IV	CRIMES, PUNISHMENTS AND PROCEEDINGS IN CRIMINAL CASES
Title I	CRIMES AND PUNISHMENTS
Chapter 270	CRIMES AGAINST PUBLIC HEALTH
Section 6	SALE OR PROVISION OF TOBACCO PRODUCT TO PERSON UNDER 21 YEARS OF AGE

Section 6. (a) As used in this section and sections 6A and 7, the following words shall have the following meanings unless the context clearly requires otherwise:

"Manufacturer", a person that manufactures or produces a tobacco product.

"Person", an individual, firm, fiduciary, partnership, corporation, trust or association, however formed, or a club, trustee, agency or receiver.

"Retail establishment", a physical place of business or a section of a physical place of business wherein a tobacco product is offered for sale to consumers.

"Retailer", a person that operates a retail establishment.

"Tobacco product", a product containing, made or derived from tobacco or nicotine that is intended for human consumption, whether smoked, chewed, absorbed, dissolved, inhaled, snorted, sniffed or ingested by any

other means including, but not limited to, cigarettes, cigars, little cigars, chewing tobacco, pipe tobacco, snuff, electronic cigarettes, electronic cigars, electronic pipes, electronic nicotine delivery systems or any other similar products that rely on vaporization or aerosolization; provided, however, that "tobacco product" shall also include any component, part or accessory of a tobacco product; and provided further, that "tobacco product" shall not include a product that has been approved by the United States Food and Drug Administration for the sale of or use as a tobacco cessation product and is marketed and sold exclusively for the approved purpose.

(b) No person shall sell or provide a tobacco product to a person who is under 21 years of age.

(c) No manufacturer or retailer shall distribute or cause to be distributed a free sample of a tobacco product in a retail or other commercial establishment; provided, however, that this subsection shall not apply to retail tobacco stores and smoking bars as defined in section 22.

(d) A person who violates this section shall be punished by a fine of \$1,000 for the first offense, \$2,000 for a second offense and \$5,000 for a third or subsequent offense.

(e) The department of public health may promulgate regulations to implement this section.

Number 2024-006B

Fee \$50.00

Town of Truro Board of Health
24 Town Hall Road, Truro, MA 02666
Tobacco/Tobacco Products License

This is to Certify that
Address

Keith Morris, mgr., Head of the Meadow Citgo
435 Route 6, North Truro

IS HEREBY GRANTED A LICENSE

For sales and distribution of **tobacco and tobacco products**

This license is granted in conformity with the Statutes and ordinances relating thereto, and expires
December 31, 2024 unless sooner suspended or revoked.

Date *November 17, 2023*



Emily Beebe, RS

Truro Board of Health Agent

JUL 02 2024

RECEIVED BY:

Fee: \$75.00
PAID

V# 2024-12



TRURO HEALTH &
CONSERVATION DEPARTMENT
24 Town Hall Road, Truro 02568

APPLICATION FOR BOARD OF HEALTH WAIVER OF TIME

BOH Reg. Section VI, Article 3(1)a Required Upgrade Upon Property Transfer

Date 7/1/24 Board of Health Hearing Date: 7/16/24
Address of Property 599 SHORE ROAD, NORTH TRURO
Map & Parcel 3-8-0
Anticipated Date of Property Transfer: 7/12-7/24/24
Length of Time Requested to Complete Upgrade: 6 MONTHS
Design Engineer/Sanitarian: NOT SELECTED YET Phone #: _____

SELLER'S INFORMATION:

Seller/Property Owner's Name: TIM WATERHOUSE TRUSTEE OF THE WATERHOUSE REALTY TRUST
Mailing Address: 115 MATTHEWS DR WENTZVILLE, MO 63385
Phone #: [REDACTED] Fax: [REDACTED] Email: [REDACTED]
Seller's R.E. Broker: THAY MACHADO Phone: [REDACTED]
Email: THAY@INVESTREALLYHOMES.COM

BUYER'S INFORMATION

Buyer's Name: BRICE AND MICHELLE MCKANE
Mailing Address: 1406 PLANTATION DRIVE, SOUTH LAKE, TX, 76092
Phone #: [REDACTED] Email: [REDACTED]
Buyer's R.E. Broker: ISKREN GEDRGIEV Phone #: [REDACTED]
Email: ISKREN6@GIBSONSR.COM

Please attach the following to this form: (1) a narrative explaining why you can't comply with Section VI, Article 3(1)a, Required Upgrade Upon Property Transfer, and (2) a statement from your engineer/designer, stating that they have been retained by the seller/buyer to complete the Title 5 upgrade.

TIM WATERHOUSE TRUSTEE OF THE
WATERHOUSE REALTY TRUST

dotloop verified
07/01/24 5:27 PM CDT
03AM-A04P-0AOC-HMES

Signature (Property Owner)

Signature (Buyer)

Date

Date

7/1/24

Brice and Michelle McKane
1406 Plantation Drive
Southlake, TX 76092

HEALTH DEPARTMENT
TOWN OF TRURO

JUL 12 2024

RECEIVED BY:

July 5, 2024

Truro Board of Health
24 Town Hall Road
Truro, MA 02666

Dear Sir or Madame:

We are writing to you as we are attempting to purchase 599 Shore Road in North Truro. The property has a 3-bedroom single family home located in a sensitive area. We understand that there is a serious septic issue regarding the home and that it has failed inspection. In order to proceed with our purchase, we would be interested in speaking with the Board of Health about a waiver of time. We understand that the home is only 3-bedrooms even though the prior owner did not treat it as so. We would like to inform the Board of Health that the home needs numerous additional repairs and that we are speaking with a contractor about this. It would not be occupied during any renovation and until appropriate septic repairs can be made. We are prepared to contract with a septic designer to allow for the necessary repairs to the current system while we bridge the time until the property can either connect to the proposed Town sewer or upgrade to a new septic system.

Best regards,

The block contains two handwritten signatures in black ink. The signature on the left is a stylized, cursive 'B' followed by 'Brice'. The signature on the right is a cursive 'M' followed by 'Michelle McKane'.

Brice and Michelle McKane



TOWN OF TRURO

HEALTH DEPARTMENT

P.O. Box 2030, Truro MA 02666

Tel: 508-349-7004 Fax: 508-349-5508

July 3, 2024

Delivered by email to: timwaterhouse@yahoo.com

Waterhouse Realty Trust
Trustees: David N & Irene Waterhouse
c/o Tim Waterhouse
115 Matthews Drive
Wentzville, MO 63385

RE: 599 Shore Road, (map 3, parcel 8)

ORDER TO CORRECT: UPGRADE SEPTIC SYSTEM OR ENTER INTO AN ADMINISTRATIVE CONSENT ORDER

To the Trustees of the Waterhouse Realty Trust,

Review of the Septic System Inspection Report submitted to our offices by Kevin Bloomquist of Kevin Bloomquist LLC on 6/11/2024 indicates that your septic system has failed.

The Town of Truro is currently working with the Town of Provincetown to determine the feasibility of extending the Provincetown sewer system to the Beach Point area of Shore Road as part of our municipal wastewater planning process. Under Section VI, Article 3 of our local Board of Health Regulations, the Board of Health may offer Administrative Consent Orders (ACOs) to property owners with failed systems along this area of Shore Road. The ACO process will essentially pause the process to immediately upgrade a failed septic system and allow a simple repair to be a bridge until the time that the property will either connect to Town sewer once available or upgrade the septic system.

An ACO requires the property owner to establish an interest-bearing escrow account with the Town to hold funds that are sufficient to either pay a betterment fee or complete the installation. The amount specified is a gallon per day rate based on the estimated costs for sewer connection for the approved number of bedrooms for the property. This escrow amount may be paid in installments.

Additionally, the inspector observed 5 bedrooms. The property file indicates that the single-family home was built as a 3-bedroom home and no permits for any other bedrooms were approved. The extra bedrooms are accessible only through the basement door, giving it the appearance of a separate apartment. The house is a 3-bedroom single family residence, and any additional bedrooms must be removed with a building permit.

Further, the Board of Health regulation Section VI, Article 3.1a requires upgrade or agreement to enter

into an ACO prior to the time of transfer.

Please contact us as soon as possible to discuss these issues. Failure to respond to this Order within 3 business days of receipt may result in further action by the Board of Health.

Should you be aggrieved by this order, you have a right to request a hearing before the Board of Health. A request must be received in writing to the Office of the Board of Health within seven (7) days receipt of this order.

Sincerely,

A handwritten signature in cursive script that reads "Courtney Warren". The signature is written in dark ink and is positioned above the printed name and title.

Courtney Warren
Assistant Health Agent

cc. Board of Health; Building Commissioner; and Thay Carvalho, realtor

Courtney Warren

From: [REDACTED]
Sent: Sunday, July 7, 2024 9:28 AM
To: Courtney Warren
Subject: Re: Order to Correct - 599 Shore Rd

Sorry I did not get this sooner. Since I retired I normally do not check my email very often. I did not know of the apartment built in the basement till my realestate lady told me that my renters Nati of Carmona construction built this. The realestate lady told me walls had to be removed and some where so now it is basically a big room. I signed some agreement because my buyer is is going to do what ever is needed. I live on social security and will not have any funds. That is what I am being forced to sell. I would have believed Carmona construction would have totally understood getting permits. I am thinking there were many more people living in my hope then there were supposed to be.
I will try to call you on Monday.
Have a great day.

[Sent from Yahoo Mail for iPhone](#)

On Friday, July 5, 2024, 11:56 AM, Courtney Warren <cwarren@truro-ma.gov> wrote:

Hi Tim,

Sorry to send this with a read receipt, but we need to ensure that you receive it.

We have already had contact with your potential buyer, and they are planning to appear before the Board of Health on July 16, 2024 to discuss this matter.

Can you respond to this email so that I know that you received this?

Thanks.

Courtney

Courtney Warren

Asst. Health & Conservation Agent | Town of Truro



Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

JUN 11 2024

RECEIVED BY: 2/8



Septic Inspections

Owner
information is
required for every
page.

599 Shore Road

Property Address

TIM WATERHOUSE TRUSTEE OF THE "WATERHOUSE REALTY TRUST"

Owner's Name

Truro

City/Town

Ma
State

02666
Zip Code

6/6/2024
Date of Inspection

Inspection results must be submitted on this form. Inspection forms may not be altered in any way. Please see completeness checklist at the end of the form.

Important: When
filling out forms
on the computer,
use only the tab
key to move your
cursor - do not
use the return
key.



A. Inspector Information

Kevin Bloomquist www.Title5MA.com

Name of Inspector

Kevin Bloomquist LLC

Company Name

1286 Old Pleasant Street Street

Company Address

Bridgewater

City/Town

774-517-8936

Telephone Number

Ma

State

02324

Zip Code

SI14523

License Number

B. Certification

I certify that: I am a DEP approved system inspector in full compliance with Section 15.340 of Title 5 (310 CMR 15.000); I have personally inspected the sewage disposal system at the property address listed above; the information reported below is true, accurate and complete as of the time of my inspection; and the inspection was performed based on my training and experience in the proper function and maintenance of on-site sewage disposal systems. After conducting this inspection I have determined that the system:

- ☐ Passes
- ☐ Conditionally Passes
- ☐ Needs Further Evaluation by the Local Approving Authority
- ☒ Fails

Inspector's Signature

6/7/2024

Date

The system inspector shall submit a copy of this inspection report to the Approving Authority (Board of Health or DEP) within 30 days of completing this inspection. If the system has a design flow of 10,000 gpd or greater, the inspector and the system owner shall submit the report to the appropriate regional office of the DEP. The original form should be sent to the system owner and copies sent to the buyer, if applicable, and the approving authority.

Please note: This report only describes conditions at the time of inspection and under the conditions of use at that time. This inspection does not address how the system will perform in the future under the same or different conditions of use.



Owner
information is
required for every
page.

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments



599 Shore Road

Property Address

TIM WATERHOUSE TRUSTEE OF THE "WATERHOUSE REALTY TRUST"

Owner's Name

Truro

City/Town

Ma
State

02666

Zip Code

6/6/2024

Date of Inspection

C. Inspection Summary (cont.)

4) System Failure Criteria Applicable to All Systems: (cont.)

Yes No

- | | | |
|-------------------------------------|-------------------------------------|--|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Static liquid level in the distribution box above outlet invert due to an overloaded or clogged SAS or cesspool |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Liquid depth in cesspool is less than 6" below invert or available volume is less than ½ day flow |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Required pumping more than 4 times in the last year NOT due to clogged or obstructed pipe(s). Number of times pumped: <u>3</u> |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Any portion of the SAS, cesspool or privy is below high ground water elevation. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Any portion of cesspool or privy is within 100 feet of a surface water supply or tributary to a surface water supply. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Any portion of a cesspool or privy is within a Zone 1 of a public water supply well. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Any portion of a cesspool or privy is within 50 feet of a private water supply well. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Any portion of a cesspool or privy is less than 100 feet but greater than 50 feet from a private water supply well with no acceptable water quality analysis. [This system passes if the well water analysis, performed at a DEP certified laboratory, for fecal coliform bacteria indicates absent and the presence of ammonia nitrogen and nitrate nitrogen is equal to or less than 5 ppm, provided that no other failure criteria are triggered. A copy of the analysis and chain of custody must be attached to this form.] |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | The system is a cesspool serving a facility with a design flow of 2000 gpd-10,000 gpd. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | The system fails. I have determined that one or more of the above failure criteria exist as described in 310 CMR 15.303, therefore the system fails. The system owner should contact the Board of Health to determine what will be necessary to correct the failure. |

5) Large Systems: To be considered a large system the system must serve a facility with a design flow of 10,000 gpd to 15,000 gpd.

For large systems, you must indicate either "yes" or "no" to each of the following, in addition to the questions in Section C.4.

Yes No

- | | | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | the system is within 400 feet of a surface drinking water supply |
| <input type="checkbox"/> | <input type="checkbox"/> | the system is within 200 feet of a tributary to a surface drinking water supply |
| <input type="checkbox"/> | <input type="checkbox"/> | the system is located in a nitrogen sensitive area (Interim Wellhead Protection Area - IWPA) or a mapped Zone II of a public water supply well |



Commonwealth of Massachusetts
Title 5 Official Inspection Form
Subsurface Sewage Disposal System Form - Not for Voluntary Assessments



Owner
information is
required for every
page.

599 Shore Road
Property Address
TIM WATERHOUSE TRUSTEE OF THE "WATERHOUSE REALTY TRUST"
Owner's Name
Truro Ma 02666 6/6/2024
City/Town State Zip Code Date of Inspection

D. System Information

1. Residential Flow Conditions:

Number of bedrooms (design): 3 Number of bedrooms (actual): 5
DESIGN flow based on 310 CMR 15.203 (for example: 110 gpd x # of bedrooms): 330

Description:

There are two extra bedrooms and a sink in the basement that can only be accessed through the back door.

The septic design calculations came from public records on file at the Board of Health.

Number of current residents: 0

Does residence have a garbage grinder? ☐ Yes ☒ No

Does residence have a water treatment unit? ☐ Yes ☒ No

If yes, discharges to: _____

Is laundry on a separate sewage system? (Include laundry system inspection information in this report.) ☐ Yes ☒ No

Laundry system inspected? ☒ Yes ☐ No

Seasonal use? ☐ Yes ☒ No

Water meter readings, if available (last 2 years usage (gpd)): _____

Detail:

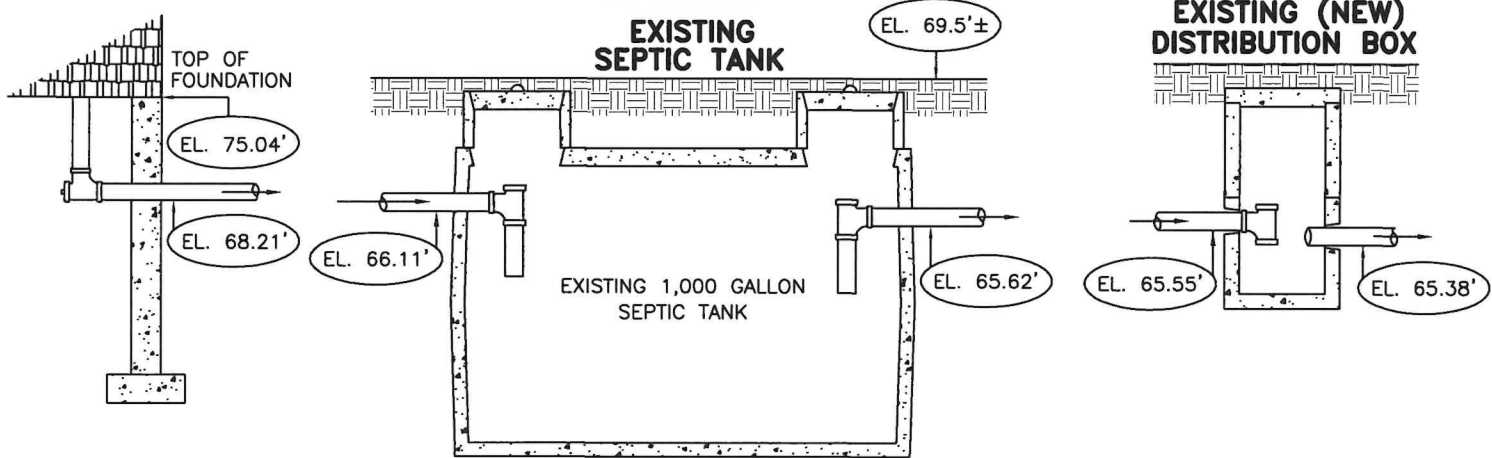
Requested, but no response in time for Inspection Report.

Sump pump? ☐ Yes ☒ No

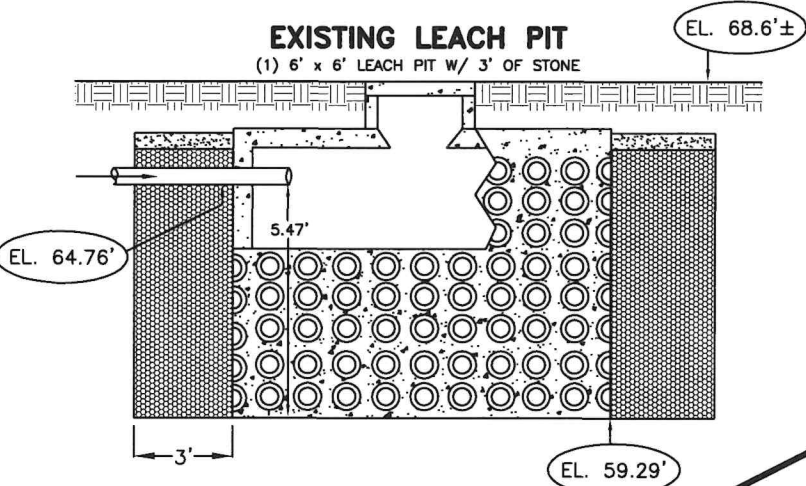
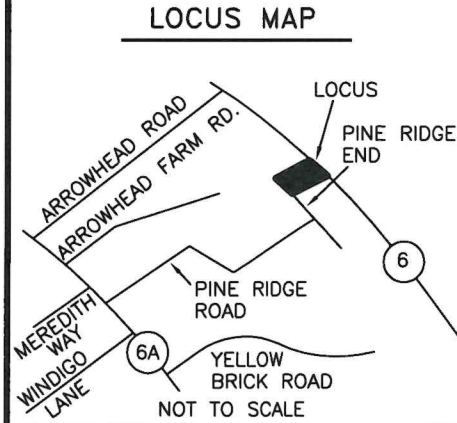
Last date of occupancy: 5/30/2024
Date

SECTION DETAIL - COMPONENTS

NOT TO SCALE



	A	B
SEPTIC TANK IN	27.6'	20.2'
SEPTIC TANK OUT	33.0'	20.6'
D-BOX	38.2'	23.4'
LEACH PIT	58.0'	39.2'



DEEP HOLE DATA

PERFORMED BY: JASON C. ELLIS, R.S., S.E.
WITNESSED BY: COURTNEY WARREN, TRURO BOH
TEST DATE: JUNE 28, 2024

#1		#2	
DEPTH	ELEV.	DEPTH	ELEV.
0.00'	68.3'	0.00'	68.3'
1.5'	66.8'	1.5'	66.8'
1.83'	66.47'	1.66'	66.64'
3.16'	65.14'	2.25'	66.05'
12.5'	55.8'	11.5'	56.8'
NO WATER ENCOUNTERED		NO WATER ENCOUNTERED	

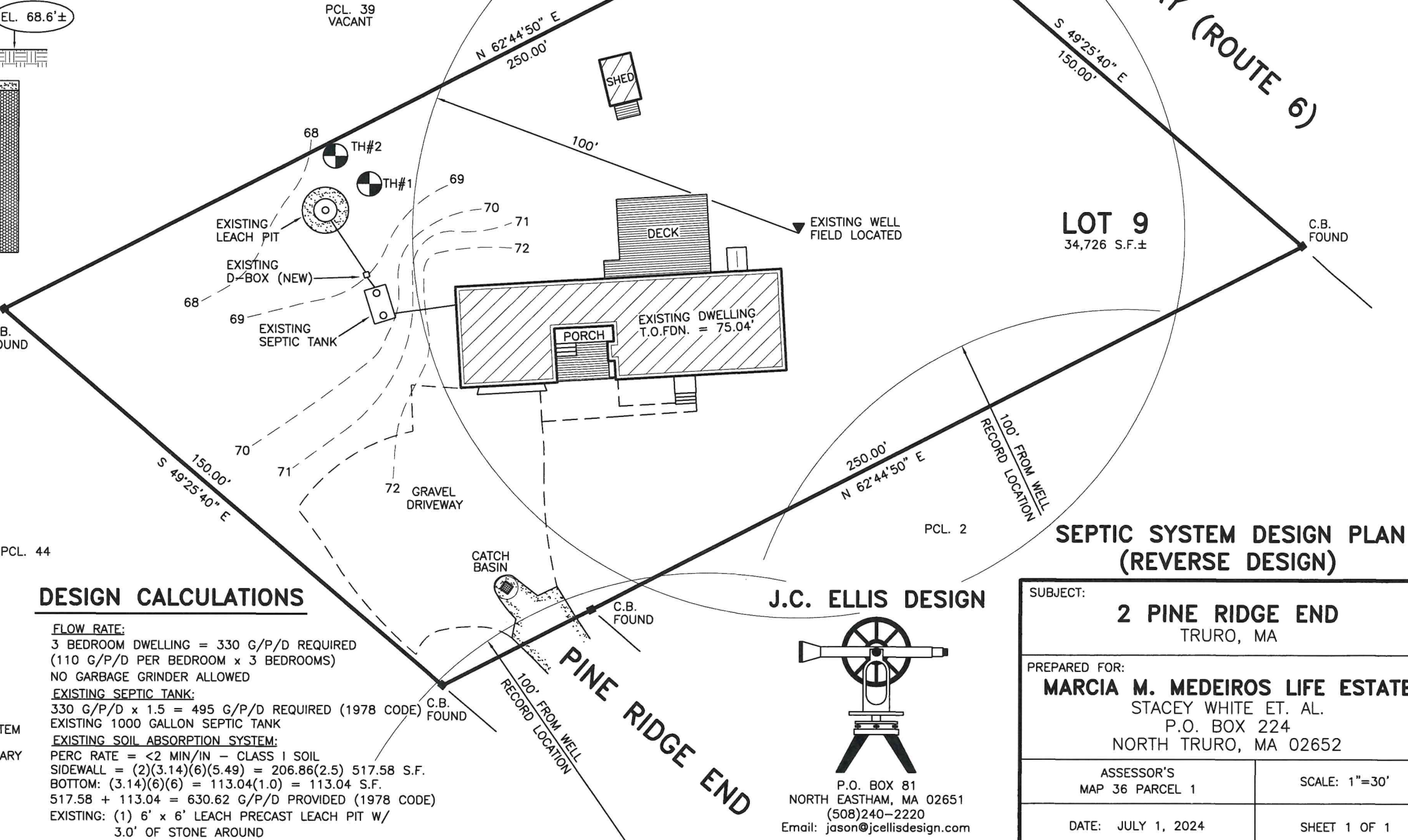


JASON C. ELLIS, R.S.

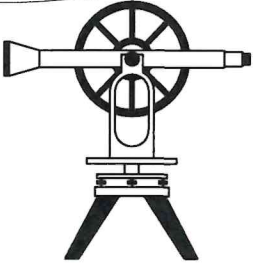
DEED REFERENCE:
DEED BOOK 35518 PAGE 50
SURVEY PLAN REFERENCE:
PLAN BOOK 184 PAGE 113
THIS PLAN IS FOR SEPTIC SYSTEM
DESIGN PURPOSES ONLY.
THIS PLAN IS NOT FOR BOUNDARY
DETERMINATION.
PROPERTY OWNER AND
CONTRACTORS TO VERIFY
ALL WATER LINES AND GAS
UTILITIES ON PROPERTY.

DESIGN CALCULATIONS

FLOW RATE:
3 BEDROOM DWELLING = 330 G/P/D REQUIRED
(110 G/P/D PER BEDROOM x 3 BEDROOMS)
NO GARBAGE GRINDER ALLOWED
EXISTING SEPTIC TANK:
330 G/P/D x 1.5 = 495 G/P/D REQUIRED (1978 CODE)
EXISTING 1000 GALLON SEPTIC TANK
EXISTING SOIL ABSORPTION SYSTEM:
PERC RATE = <2 MIN./IN. - CLASS 1 SOIL
SIDEWALL = (2)(3.14)(6)(5.49) = 206.86(2.5) 517.58 S.F.
BOTTOM: (3.14)(6)(6) = 113.04(1.0) = 113.04 S.F.
517.58 + 113.04 = 630.62 G/P/D PROVIDED (1978 CODE)
EXISTING: (1) 6' x 6' LEACH PRECAST LEACH PIT W/
3.0' OF STONE AROUND



J.C. ELLIS DESIGN



P.O. BOX 81
NORTH EASTHAM, MA 02651
(508)240-2220
Email: jason@jcellisdesign.com

SEPTIC SYSTEM DESIGN PLAN
(REVERSE DESIGN)

SUBJECT: 2 PINE RIDGE END TRURO, MA	
PREPARED FOR: MARCIA M. MEDEIROS LIFE ESTATE STACEY WHITE ET. AL. P.O. BOX 224 NORTH TRURO, MA 02652	
ASSESSOR'S MAP 36 PARCEL 1	SCALE: 1"=30'
DATE: JULY 1, 2024	SHEET 1 OF 1



TOWN OF TRURO
HEALTH & CONSERVATION DEPARTMENT
24 Town Hall Road, Truro 02666
508-349-7004 x119

To: Truro Board of Health

From: Emily Beebe, Health & Conservation Agent

Date: June 14, 2024

Re: June 18 meeting: proposed waivers, septic upgrades- review notes

2 Pine Ridge End (map 36, parcel 1)- Discussion on non-conforming system

An appeal of the Health Agents decision has been made regarding the septic system at this location. The packet includes the request to present this appeal; the Order to Correct issued by our office pursuant to TBoH regulations; a copy of the inspection report dated 5-15-2024; an unstamped sketch plan of the system from 1995; and a copy of the permit (July 1995) and certificate of compliance (March 2000).

The system is a 1978 code system, installed without a stamped plan; this makes it a non-conforming system, as it did not meet the code in place when it was installed. Numerous waivers appear to have been given for this installation: no engineered plan/no stamp; permit issued 4 months after the new code was in place for a system with 1978 code components (leaching pit and 1000-gallon tank). To put this in context, we know that "Waivers", which might also be "variances" can be granted, and we try not to re-litigate past decisions. However, the rationale for our local regulation requiring an engineered plan be on file for each property is based on consistency, and compliance that will protect drinking water quality.

The questions raised by the situation require us to construct a frame around what actions the Board wants to pursue with properties served by non-conforming septic systems. The goals of the Board have been to upgrade whenever possible, to ensure that systems in the ground are properly sited, properly sized and properly functioning. That being said, it appears that the Board is willing to meet folks "in the middle" when possible, to minimize their costs and acknowledge that sometimes there is a way to simplify the path forward without making compromises that impact public health or environmental protection.

The concept of the engineered as-built is to provide the Board with evidence of code compliance, so the property can be sold without an upgrade. Setting aside the Waivers that were granted, where was the system installed, relative to wells, property lines and the dwelling?

In the past 2 years, we have had 2 cases where we were asked to allow reverse engineering, absent engineered plans at time of transfer. In the first case, the plan that was developed showed the on-site well was not 100-feet from the leaching area. The Board determined that the plan could be approved, because both the as-built plan and inspection report provided a new owner with full knowledge of the location and condition of the existing septic system. Additionally, the on-site well showed no evidence of impact from the reduced separation. In the second case, a reverse-engineered plan was allowed for a 23,023 sf property with 5-bedrooms and a 1978 code title 5 system. The plan showed the existing leaching pit was 60-feet from an abutting well and 97-feet from the locus well. The septic tank was also too close to the foundation of the house. In this second case, the owner opted to upgrade the system to move the process along faster and not interfere with a pending sale, so, the Board did not need to weigh-in on the results of the "reverse engineering" product, that is, the engineered as-built plan.

Should you decide to move forward with allowing "reverse engineering" at this location, it must be to demonstrate compliance with the code. The engineered as-built plan must show: Location of components and dwelling; Invert elevations; All setbacks to wells, structures, property lines; a reserve area compliant with the 1995 Title V code; Design calculations and a minimum of one test hole with a perc test.

The locus property is 33, 471 sf with 3 bedrooms, and is located in the zone 2 of the Knowles Heights public water supply.



Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

MAP 36, PARCEL 01, 2 PINE RIDGE END

Property Address

MARCIA M. MEDIEROS LIFE ESTATE, RMNDR STACEY WHITE et al

Owner's Name

NORTH TRURO

MA

02652

05/15/2024

City/Town

State

Zip Code

Date of Inspection

Owner
information is
required for every
page.

D. System Information (cont.)

11. Soil Absorption System (SAS) (cont.)

Comments (note condition of soil, signs of hydraulic failure, level of ponding, damp soil, condition of vegetation, etc.):

COVER AT GRADE, 1 6" DIAMETER X 6' DEEP PRECAST LEACH PIT WITH 3' OF STONE SURROUNDING BY DEIGN, 46" OF STANDING LIQUID IN PIT AT TIME OF INSPECTION, 60" DEPTH FROM BOTTOM OF INLET PIPE TO BOTTOM OF PIT, NO SIGNS OF BACKUP OR FAILURE OF SAS

12. Cesspools (cesspool must be pumped as part of inspection) (locate on site plan):

Number and configuration

Depth – top of liquid to inlet invert

Depth of solids layer

Depth of scum layer

Dimensions of cesspool

Materials of construction

Indication of groundwater inflow

☐ Yes ☐ No

Comments (note condition of soil, signs of hydraulic failure, level of ponding, condition of vegetation, etc.):



SURVEYING · ENGINEERING
HOME PLANNING & DESIGN

3 GIDDIAH HILL ROAD · P.O. BOX 439
SO. ORLEANS, MASSACHUSETTS 02662-0439
TEL: 508.255.8312 FAX: 508.240.2306
EMAIL: info@ryder-wilcox.com

July 3, 2024

Truro Board of Health
24 Town Hall Road
Truro, MA 02666

Re: 2 Adam's Way (aka 17 Snow's Road; Assr's. Map 46, Parcel 376)

Dear Board Members,

On behalf of our clients, Zachary M. Luster and Edwige M. Yingling, please reserve time at your next hearing to consider a request for variances from 310 CMR 15.00 The State Environmental Code Title 5 and the Truro Board of Health Regulations. The variances are being requested in order to allow alterations to the existing Title 5 subsurface sewage disposal system (SDS). The alterations will include Innovative/Alternative ("I/A") technology for nitrogen reduction to serve an existing five-bedroom dwelling with proposed one-bedroom Accessory Dwelling Unit ("ADU") located at the above referenced property.

The existing five-bedroom dwelling was constructed in 2004. The existing SDS consists of a 1500-gallon "poly" septic tank, distribution box, and soil absorption system ("SAS") with an approved capacity of 568 GPD. The building sewer exits below the basement slab.

During a recent maintenance pumping attempt, it was discovered that the existing septic tank is approximately 6' below grade. The septic tank has deflected from the weight of the soil. The septic pumper was unable to remove the cover for fear he would not be able to secure the cover again. It is proposed to remove the existing poly tank and replace it with a heavy duty precast concrete tank in the same location, matching the existing building sewer location and elevation.

In order to accomplish this, the following variances are requested:

310 CMR 15.00 The State Environmental Code Title 5

310 CMR 15.211(1)

- The proposed septic tank is to be approximately 7' from a slab (3' variance).

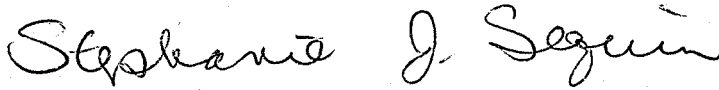
310 CMR 15.221(7)

- The top of the proposed septic tank is to be greater than 3' below finished grade (3' variance).

In addition to replacing the existing septic tank, the Applicants wish to obtain approval for a one-bedroom ADU, to be located in the existing finished basement. Since the creation of a sixth bedroom will exceed the standard of 110 GPD of wastewater flow per 10,000 SF of lot area, the Applicants propose to incorporate a SeptiTech STAAR filter system and request a Nitrogen Credit. The system has Provisional Use Approval for nitrogen reduction. The proposed septic tank will be a two-compartment tank sized in accordance with 310 CMR 15.224 Multiple Compartment Tanks. The existing SAS will be expanded to provide 660 GPD capacity.

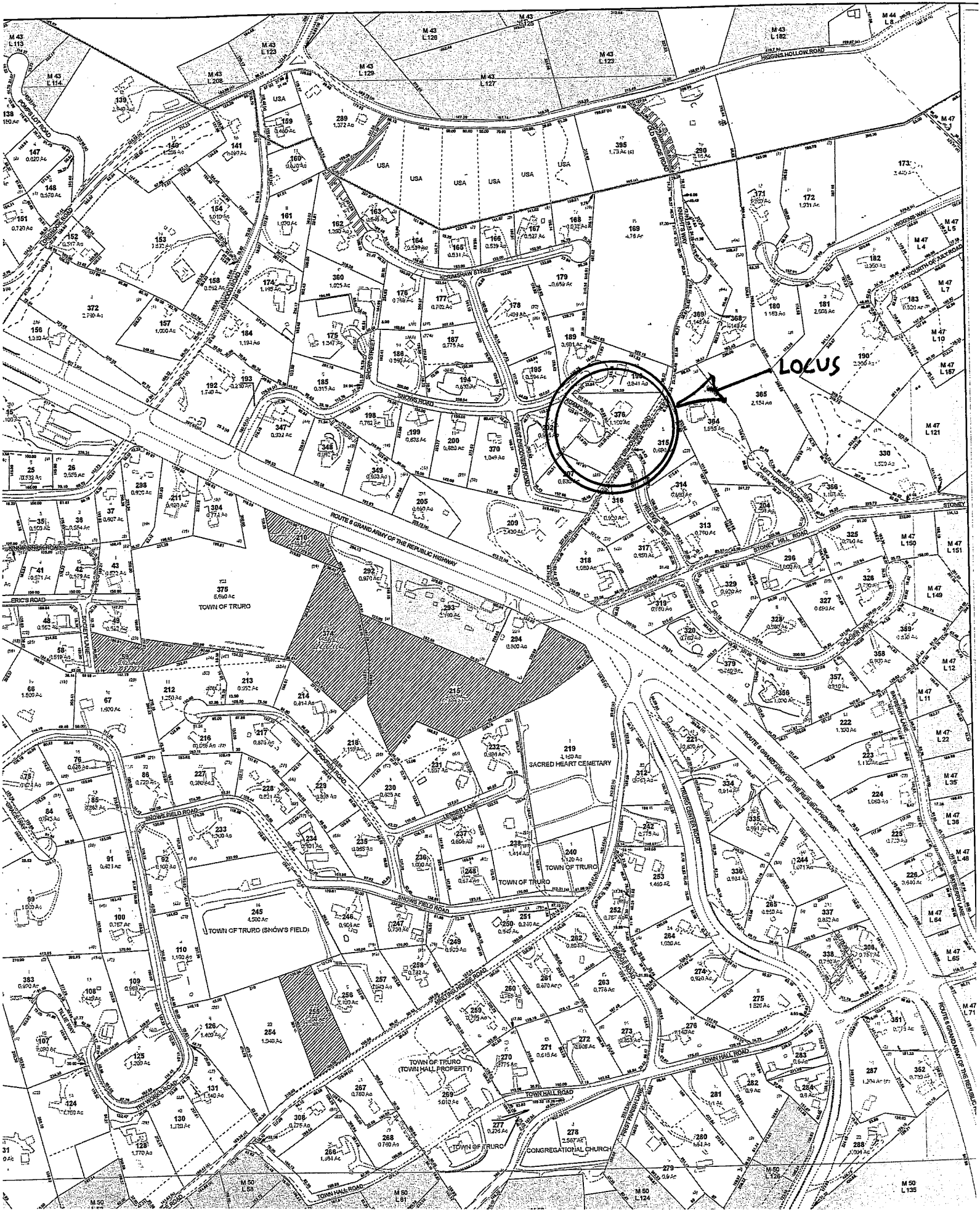
I have included seven (7) sets of the following: Application for Board of Health Variances, an engineered site plan, a Certified List of Abutters, the Abutter's Notice, floor plans, the Provisional Use Approval letter for the SeptiTech System, and a check for \$75.00. Please feel free to contact this office if you require any additional information.

Sincerely,

A handwritten signature in cursive script that reads "Stephanie J. Sequin". The signature is written in dark ink and is positioned above the printed name.

Stephanie J. Sequin, P.E.

cc: Luster/Yingling
Job #13199



Fee: \$75.00



**TRURO HEALTH &
CONSERVATION DEPARTMENT
24 Town Hall Road, Truro 02666**

APPLICATION FOR BOARD OF HEALTH VARIANCES

Date: March 11, 2024

Property Owner's Name: Zachary M. Luster and Edwige M. Yingling

Mailing Address: 4 Kiley Court Provincetown, MA 02657

Address of Property: 2 Adam's Way (aka 17 Snow's Road)

Map and Parcel Number: Map # 46 Parcel # 376

Design Engineer/Sanitarian Stephanie J. Sequin, P.E.

Firm/Company Name: Ryder & Wilcox, Inc. Phone #: 508-255-8312

Address: Box 439 S. Orleans, MA 02662

Please check type of variance requested:

☒ **Title 5 Variance Request: Section** 310 CMR 15.211 (1) and 310 CMR 15.221 (7)

☐ **Board of Health Variance Request: Section/Article** _____

Stephanie J. Sequin
Signature (Representative)

7/3/24
Date

[Signature]
Signature (Property Owner)

Ryder & Wilcox

SURVEYING · ENGINEERING
HOME PLANNING & DESIGN

3 GIDDIAH HILL ROAD · P.O. BOX 439
SO. ORLEANS, MASSACHUSETTS 02662-0439
TEL: 508.255.8312 FAX: 508.240.2306
EMAIL: info@ryder-wilcox.com

July 3, 2024

Re: Proposed septic system upgrade
2 Adam's Way - Truro, Mass. (Assrs. Map 46 Pcl. 376)

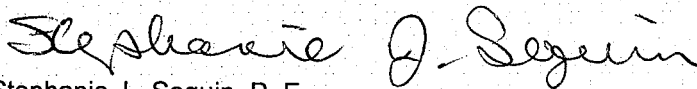
Dear Abutter:

You are being notified pursuant to the State Environmental Code Title 5 and the Truro Board of Health Regulations that the Board of Health will hold a public hearing to hear requests for variances from applicable State and/or Local regulations. The variances are being requested to allow the alterations to/expansion of the existing sewage disposal system serving an existing dwelling.

A copy of the letter requesting a hearing is enclosed. Copies of the Site Plan will be on file with the Board of Health by July 5th and may be viewed prior to the public hearing to be held at Truro Town Hall, located at 24 Town Hall Road, on July 16, 2024. Variance hearings begin at 4:30 P.M. The estimated time of the hearing for this project may be obtained by contacting the Health Department at 508-214-0920.

The meeting will be a hybrid meeting (in-person and remote access). The meeting can be viewed on Channel 18 and on the homepage of the Town of Truro website. Instructions for remote participation will be made available on the Town of Truro website, or by contacting the Health Department.

Sincerely,



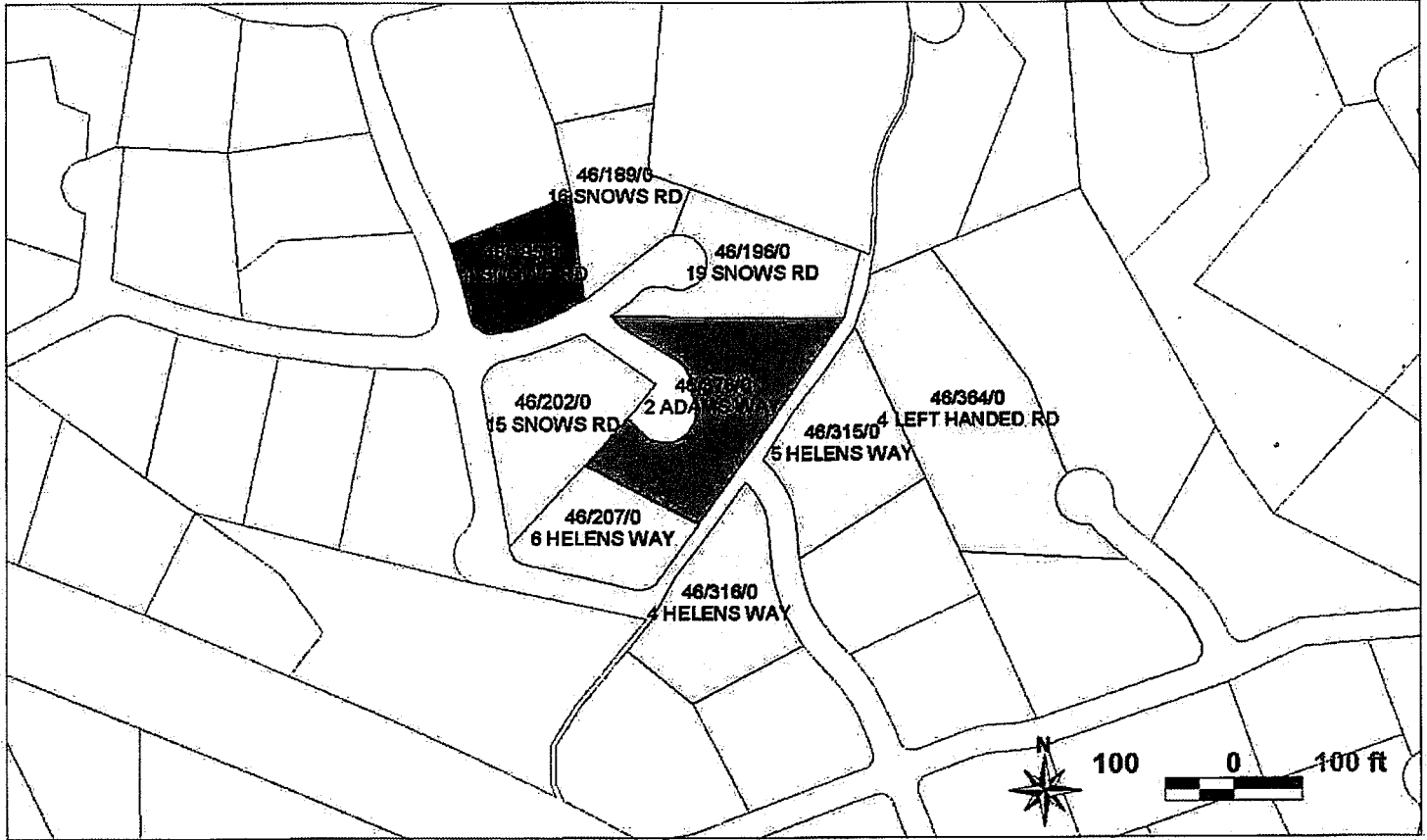
Stephanie J. Sequin, P. E.

cc: Luster/Yingling

13199

TOWN OF TRURO, MA
BOARD OF ASSESSORS
P.O. BOX 2012, TRURO MA 02666

Custom Abutters List



Key	Parcel ID	Owner	Location	Mailing Street	Mailing City	ST	ZipCd/Country
2411	46-189-0-R	WILCOX GARY JAMES & ANA MARIA	16 SNOWS RD	PO BOX 1340	TRURO	MA	02666
2417	46-195-0-R	GAUSS ARTHUR JR & MARIA V	14 SNOWS RD	PO BOX 890	TRURO	MA	02666-0890
2418	46-196-0-R	SANTOS RICHARD J & STEPHANIE L	19 SNOWS RD	PO BOX 441	NO TRURO	MA	02652-0441
2423	46-202-0-R	WATTS AMANDA M & MORRIS JOSHUA A	15 SNOWS RD	PO BOX 103	NO TRURO	MA	02652-0103
2428	46-207-0-R	HIGHLAND AFFORDABLE HOUSNG INC	6 HELENS WAY	C/O ANNETTE CYR, TREASURER PO BOX 362	TRURO	MA	02666
2524	46-315-0-R	ORA D'ORO TRURO LLC MGR: MICHAEL JOS. MARCHITTO II	5 HELENS WAY	447 HOWELLTON RD	ORANGE	CT	06477
2525	46-316-0-R	BECKERT MICHAEL L & SANTORELLI PEPE	4 HELENS WAY	PO BOX 807	TRURO	MA	02666
2569	46-364-0-R	MARCHITTO MICHAEL&JOANNE TRSTS TRS: MARCHITTO MICHAEL&JOANNE	4 LEFT HANDED RD	622 POPES ISLAND RD	MILFORD	CT	06477



Department of Environmental Protection

100 Cambridge Street 9th Floor Boston, MA 02114 • 617-292-5500

Maura T. Healey
Governor

Kimberley Driscoll
Lieutenant Governor

Rebecca L. Pepper
Secretary

Gary Moran
Acting Commissioner

MODIFIED PROVISIONAL USE APPROVAL/RENEWAL

Pursuant to Title 5, 310 CMR 15.000

Name and Address of Applicant:

Bio-Microbics of Maine, Inc.
69 Holland Street
Lewiston, ME 04240

Trade name of technology and models:

SeptiTech models STAAR .50 (M400N), STAAR .75 (M550N), STARR 1.0 (M750N), STAAR 1.2 (M1200N), STAAR 1.5 (M1500N), STAAR 3.0 (M2500N) and STAAR 4.5 (M3000N) and SeptiTech Engineered Systems (hereinafter the 'System' or the 'Technology'). Owner and operator manuals, installation manual is part of this Certification Renewal.

DEP Transmittal No.: 22-WP75-0001-REN

Date of Issuance: June 26, 2012, revised May 22, 2014, Renewal Nov. 20, 2017, Mod. January 26, 2023.

Expiration date: January 26, 2028

Authority for Issuance

Pursuant to Title 5 of the State Environmental Code, 310 CMR 15.000, the Department of Environmental Protection (hereinafter "the Department") hereby issues this Provisional Approval to: Bio-Microbics of Maine, Inc., 69 Holland Street, Lewiston, ME 04240 (hereinafter "the Company"), approving SeptiTech Engineered Systems (hereinafter "the Technology" or "System") for use in the Commonwealth of Massachusetts subject to the conditions herein. Sale and use of the Technology is subject to compliance by the Company, the Designer, the System Installer, the Operator, and the System Owner with the terms and conditions herein. Any noncompliance with the terms or conditions of this Certification constitutes a violation of 310 CMR 15.000.

/s/ Marybeth Chubb
Marybeth Chubb, Acting Section Chief
Groundwater/Title 5/Reuse
Bureau of Water Resources

January 26, 2023
Date

I. Purpose

Subject to the conditions of this Approval and any other local requirements, the purpose of this Approval is to allow installation and operation of at least 50 on-site sewage disposal systems utilizing the Technology in Massachusetts in order to conduct a performance evaluation of the capabilities of the Technology during the first 3 years of operation of each system, in accordance with Title 5 – 310 CMR 15.286 (7), *Provisional Approval of Alternative System*.

The specific goal of the Performance Evaluation is to determine if the Technology is capable of consistently meeting the concentration limits for total nitrogen (TN) of 19 or 25 milligrams per liter (mg/L) for installations with design flows less than 2,000 GPD and 25 mg/L for installations with design flows 2,000 GPD or greater but less than 10,000 gpd, in the effluent discharged to the soil absorption system. In areas subject to nitrogen loading limitations, increases in the discharge rate per acre may be allowed when the nitrogen concentration discharged to the soil is reduced.

The Company is responsible for oversight and sampling of the systems during the Performance Evaluation. The Owner has responsibility for continued oversight and sampling of the system if the property served was allowed to increase the discharge rate per acre above 440 gallons per day per acre (gpda) in an area subject to Nitrogen Loading Limitations or if the property served has a design flow of 2000 gpd or more located in a Nitrogen Sensitive Area. The System Owner will be required to repair, replace, modify or take any other action as required by the Department or the local approving authority, if the Department or the local approving authority determines that the System is not capable of meeting the required reduction in nitrogen in the effluent.

With the other applicable permits or approvals that may be required by Title 5, this Approval authorizes the installation and use of the Alternative System in Massachusetts. All the provisions of Title 5, including the General Conditions for all Alternative Systems (310 CMR 15.287), apply to the sale, design, installation, and use of the System, except those provisions that specifically have been varied by the Approval.

II. General Description of the Technology

The SeptiTech unit (the ‘System’) is installed in series between the building sewer and the soil absorption system (SAS) of a standard Title 5 system in a manner which neither intrudes on, replaces a component of, or adversely affects the operation of a Title 5 system constructed in accordance with 310 CMR 15.000, subject to the provisions of this Approval. Two or more units may be installed in parallel to accommodate larger design flows.

The System is an aerobic treatment system that uses an enhanced recirculating biological trickling filter treatment process with anoxic phase to reduce biochemical oxygen demand (BOD5), total suspended solids (TSS) and total nitrogen from sanitary wastewater by biological degradation. The wastewater flows into the first of two tanks consisting of a two-compartment primary- anoxic tank where primary settling, and partial denitrification occur. The second processor tank contains the trickling filter media and pumps for recirculation within the trickling filter, recirculation back to the anoxic tank and for discharge to the distribution box of the SAS or to a pressure distribution system. In addition to BOD reduction, further nitrification occurs in the mixed liquor as it passes through the trickling filter with the ammonium in the wastewater converting to nitrate. The System uses a hydrophobic media composed of either polystyrene beads or polystyrene beads with honeycomb shaped solid media, in a two-stage process that allows biological growth within the media pore spaces.

SeptiTech Models STAAR .5 (M400N) through STAAR 1.0 (M750N) come prefabricated in HDPE or concrete tanks and have hydrophobic bead media in mesh bags. SeptiTech Models STAAR 1.2 (M1200N) through STAAR 4.5 (M3000N) are configured similarly to STAAR .5 (M400N) series tanks; however, these units include a larger processor tank and use a combination of the larger commercial solid media and hydrophobic bead media in mesh bags. A programmable logic controller (PLC) controls the treatment process. The PLC monitors incoming flows and adjusts the treatment process (recirculation, recycling, sludge return, and discharge cycles). The SeptiTech Engineered system, as referred to in this approval, are just multiples of the commercial STAAR 4.5 (M3000N) for large flows larger than a regular STAAR 4.5. Other systems (s) are added in line to handle flow treatment. So, the O&M for the STAAR 4.5 would cover a system with multiple STAAR 4.5 systems (Engineered System), as it is the same system with one additional tank.

- Wastewater from the primary anoxic tank enters the treatment tank and collects in a reservoir at the base of the tank where it mixes with treated wastewater,
- A recirculation pump controlled by the PLC pumps the wastewater to the treatment area at the top of the tank where air is drawn into the wastewater,
- The aerated wastewater is sprayed over the hydrophobic media which is suspended above the reservoir, wastewater trickles through the media and returns to the reservoir,
- Wastewater is circulated over the media 70 or more times per day,
- Effluent is returned on a scheduled basis to the anoxic tank for denitrification
- Solids in the reservoir are periodically returned to the anoxic tank

The control panel including alarms are mounted in a location accessible to the operator (or Service Contractor) of the System.

For Systems with a design flow of 2000 gpd or greater an influent sampling location that is not impacted by recycled wastewater shall be a part of the design.

The use of the Technology under this Approval requires:

- Disclosure Notice in the Deed to the property;
- Certifications by the Company, the Designer, and the Installer;
- System Owner Acknowledgement of Responsibilities;
- A certified operator under contract for periodic inspection and maintenance;
- Periodic sampling;
- Recordkeeping and reporting; and
- An external power supply

III. Conditions of Approval

A. Basis for Conditions

1. The term “System” refers to the Technology in combination with any other components of an on-site treatment and disposal system that may be required to serve a Facility in accordance with 310 CMR 15.000.
2. The term “Approval” includes the Special Conditions, Standard Conditions, General Conditions of 310 CMR 15.287, and the approved Attachments.
3. Items required by this Approval include:
 - a) Performance Evaluation Plan (PEP) with sampling and analysis requirements and approved by the Department. The PEP must be submitted to the Department for review and approval within 60 days of issuance of this Approval and meet the requirements of

the Department's *Guidance for the Preparation of Performance Evaluation Plans < 2,000 GPD*, and *Guidance for the Preparation of Performance Evaluation Plans 2,000 GPD or Greater*;

- b) minimum System installation requirements;
- c) company schematic drawings and specifications;
- d) Owner's Manual, including information on substances that should not be discharged to the System;
- e) Operation and Maintenance manual, including but not limited to, operator qualification requirements, inspection requirements, sampling and analysis requirements, recordkeeping requirements, and/or reporting requirements; and
- f) MassDEP Operation and Maintenance (O&M) checklist and I/A technology inspection checklist.

B. Special Conditions for all Systems

1. Department review and approval of the System design and installation is not required unless the Department determines on a case-by-case basis pursuant to its authority at 310 CMR 15.003(2) (e) that the proposed System requires Department review and approval.
2. System installations must meet the specific siting conditions for Provisional Use provided in 310 CMR 15.286(4) and the facility must meet the siting requirements of this Approval.
3. Any System for which a complete Disposal System Construction Permit Application is submitted while this Approval is in effect, may be permitted, installed, and used in accordance with this Approval unless the Department, the local approval authority, or a court requires the System to be modified or removed or requires discharges to the System to cease.
4. The System Owner shall provide access to the site for purposes of sampling the System in accordance with the Company's technology Performance Evaluation Plan approved by the Department, in addition to providing access for performing inspections, maintenance, repairs, and responding to alarm events.
5. The System Owner shall ensure that no permanent buildings or structures, other than the System, are constructed in the area for the installation of all the components of a fully conforming Title 5 system with a reserve area. The area for a fully conforming Title 5 system with a reserve area shall not otherwise be disturbed by the System Owner in any manner that will render it unusable for future installation of a fully conforming Title 5 system.
6. The Department has not determined that the performance of the System will provide a level of protection to public health and safety and the environment that is at least equivalent to that of a sanitary sewer system.

If it is feasible to connect a new or existing facility to the sewer, the Designer shall not propose an Alternative System to serve the facility and the facility Owner shall not install or use an Alternative System.

When a sanitary sewer connection becomes feasible after an Alternative System has been installed, the System Owner shall connect the facility served by the System to the sewer within 60 days of such feasibility and the System shall be abandoned in compliance with 310 CMR 15.354, unless a later time is allowed in writing by the Department or the Local Approving Authority.

7. The control panel including alarms shall be mounted in a location accessible to the System Operator.
8. For Systems with a design flow of 2,000 gpd or greater, an influent sampling location that is not impacted by recycled wastewater shall be a part of the System design.
9. For any System that does not flow by gravity to the SAS, the System shall be equipped with sensors and high-level alarms to protect against high water due to pump failure, pump control failure, loss of power, or system freeze up. The control panel including alarms and controls shall be mounted in a location always accessible to the operator (or service contractor). Emergency storage capacity for wastewater above the high-level alarm shall be provided equal to the daily design flow of the System and the storage capacity shall include an additional allowance for the volume of all drainage which may flow back into the System when pumping has ceased.

Instead of providing emergency 24-hour storage, an independent standby power source may be provided for operation during an interruption in power. With any interruption of the power supply the source must be capable of automatically activating in addition to manual start up capability. The standby power must be sufficient to handle peak flows for at least 24 hours and sufficient to meet all power needs of the System including, but not limited to, pumping, ventilation, and controls. Standby power installations must be inspected and exercised at least annually and all automatic and manual start up controls must be tested. Standby power installations must comply with all applicable state and local code requirements. Provided that a standby power installation complies with these requirements, no variance is required to the provisions of 310 CMR 15.231(2).

10. System unit malfunction and high-water alarms shall be connected to circuits separate from the circuits to the operating equipment and pumps.
11. All System control units, valve boxes, conveyance lines and other System appurtenances shall be designed and installed to prevent freezing per the Company's recommendations.
12. Any System structures with exterior piping connections located within 12 inches or below the Estimated Seasonal High Groundwater elevation shall have the connections made watertight with neoprene seals or equivalent.
13. In compliance with 310 CMR 15.240(13), a minimum of one (1) inspection port shall be provided within the SAS consisting of a perforated four inch pipe placed vertically down into the stone to the naturally occurring soil or sand fill below the stone. The pipe shall be capped with a screw type cap and accessible to within three inches of finish grade.

Operation and Maintenance

14. Inspection, operation and maintenance (O & M), sampling, and field testing of the System required by this Approval shall be performed by a System Operator with the following qualifications:
 - a) is an approved System Inspector in accordance with 310 CMR 15.340;
 - b) has been trained by the Company and whose name appears on the Company's current list of qualified operators; and
 - c) has been certified at a minimum of Grade Level IV (four) by the Board of Registration of Operators of Wastewater Treatment Facilities, in accordance with Massachusetts regulations 257 CMR 2.00. The name of the Operator shall be included in the O&M agreement required by Section B Paragraph (10).

15. Prior to the use of the System, the System Owner shall enter into an O&M Agreement with a qualified contractor and submit the Agreement to the Approving Authority and the Company. The Agreement shall be at least for one year and include the following provisions:
 - a) The name of the qualified Operator that appears on the Company's current list of Service Contractors;
 - b) The System Operator must have the qualifications specified in Section B Paragraph (9);
 - c) The System Operator must inspect the System in accordance with the Approval and anytime there is an equipment failure, System failure, or other alarm event;
 - d) In the case of a System failure, an equipment failure, alarm event, components not functioning as designed or in accordance with the Company specifications, or violations of the Approval, procedures and responsibilities of the Operator and System Owner shall be clearly defined for corrective measures to be taken immediately. The System Operator shall agree to provide written notification within five days describing corrective measures taken to the System Owner, the Company, and the local board of health;
 - e) The System Operator shall determine the cause of total nitrogen effluent limit violations if they occur and take corrective actions in accordance with the approved O & M Manual, and
 - f) Procedures and responsibilities for recording quarterly or monthly wastewater flows must be defined, see Section C Paragraph (7) or Section D Paragraph (9), *Flow Metering*.
16. At all times, the System Owner shall maintain an O & M Agreement that meets the requirements of Section C Paragraph (9) or Section D Paragraph (9).
17. The System Owner and the System Operator shall properly operate and maintain the system in accordance with this Approval, the Designer's operation and maintenance requirements, and the requirements of the local approving authority.

Recordkeeping and Reporting

18. Upon determining that the System has failed, as defined in 310 CMR 15.303, the System Operator shall notify the System Owner immediately.
19. Upon determining that the System has failed, as defined in 310 CMR 15.303, the System Owner and the System Operator shall be responsible for the notification of the local approving authority within 24 hours of such determination.
20. In the case of a System failure, an equipment failure, alarm event, components not functioning as designed or in accordance with the Company specifications, or any violations of the Approval, the System Owner and the System Operator shall be responsible for the written notification of the local approving authority and the Company within five days describing corrective measures taken.
21. Within 60 days of any site visit, the System Operator shall submit an O&M report and inspection checklist to the System Owner and the Company. The O&M report and inspection checklist shall include, at a minimum:

- a) for a System failing, any corrective actions taken;
 - b) wastewater analyses, wastewater flow data, and field testing results;
 - c) any violations of the Approval;
 - d) any determinations that the System or its components are not functioning as designed or in accordance with the Company specifications; and
 - e) any other corrective actions taken or recommended.
22. By September 30th of each year, the System Owner and the Service Contractor shall be responsible for submitting to the local approving authority all monitoring results with all O&M reports and inspection checklists completed by the System Operator during the previous 12 months.
23. By September 30th of each year, the Service Contractor shall be responsible for submitting to the Company copies of all O&M reports including alarm event responses, all monitoring results, violations of the Approval, inspection checklists completed by the Service Contractor, notifications of system failures, and reports of equipment replacements with reasons during the previous 12 months.
24. A copy of the wastewater analyses, wastewater flow data, field testing results, and System Operator O&M reports and inspection checklists shall be maintained by the Company. It is recommended the System Owner also maintain copies of these items.
25. The System Owner shall notify the Approving Authority in writing within seven days of any cancellation, expiration or other change in the terms and/or conditions of the O&M Agreement required by Section B Paragraph (10).
26. The System Owner and the Service Contractor shall maintain copies of the Service Contractor's O&M reports, inspection checklists, and all reports and notifications to the LAA for a minimum of five years.

C. Special Conditions For Systems less than 2,000 GPD

The Technology is approved for use with a System serving a facility with a maximum design flow of less than 2,000 gallons per day, subject to the following additional conditions:

1. The System may only be installed to serve facilities where a fully conforming Title 5 system with a reserve area exists on-site or could be built on-site in compliance with the design standards for new construction of 310 CMR 15.000, and for which a site evaluation in compliance with 310 CMR 15.000 has been approved by the Approving Authority. A fully conforming Title 5 system may include other approved alternative technologies in accordance with the conditions imposed on the alternative technologies.
2. Subject to the provisions of this Approval, the Technology shall be installed in a manner which neither intrudes on, replaces a component of, or adversely affects the operation of all other components of the System designed and constructed in accordance with the standards for new construction of 310 CMR 15.200 - 15.279.

Effluent Limit and Monitoring Requirements for Systems less than 2,000 GPD,

3. If the System is installed to serve new construction in an area that is subject to the Nitrogen Loading Limitations of 310 CMR 15.214 and the facility does not meet with the Nitrogen Loading Limitations pursuant to the aggregation provisions of 310 CMR 15.216, the System shall not be designed to receive and shall not receive more than 440 gallons of design flow per day per acre (gpda), except:

- a) For any facility, an increase in the flow rate per acre is allowed up to a design flow up to 550 gpd/acre provided that the facility meets a TN effluent limit of 25 mg/l or less, or
- b) For residential facilities only, an increase in the flow rate per acre is allowed up to a design flow up to 660 gpd/acre provided that the facility meets a TN effluent limit of 19 mg/l or less.

The System Owner shall repair, replace, modify or take any other action as required by the Department or the local approving authority, if the Department or the local approving authority determines that the System is not capable of meeting the total nitrogen concentration limits in the effluent.

Violation of the TN concentration in the System effluent shall not require notifications as required in Section B Paragraphs (13) and (14).

- 4. Prior to Department approval of the Company's Performance Evaluation Plan, the Company shall be responsible for the following monitoring requirements for all System installations that are subject to a total nitrogen concentration limit in accordance with Section C Paragraph (3). Sampling shall include pH, BOD₅, TSS and Total Nitrogen, unless otherwise stated. Flow shall be recorded at each inspection, see "Flow Metering" below.

- a) Year-round facilities shall be inspected and effluent sampled quarterly.
- b) Seasonal properties shall be inspected and effluent sampled a minimum of twice per year, with at least one annual sample taken 30 to 60 days after seasonal occupancy and a second sample taken no less than 2 months after the first sample.
- c) After 12 rounds of monitoring, sampling may be reduced to TN only quarterly. Reduced sampling shall also include Field Testing of System wastewater when determined necessary by the operator, see <https://www.mass.gov/files/documents/2016/08/wp/testsamp.pdf>.

Properties occupied at least 6 months per year are considered year-round properties. Properties occupied less than 6 months per year are considered seasonal properties.

- 5. During the Performance Evaluation period, the Company shall follow the monitoring requirements specified in the Performance Evaluation Plan for installed Systems.
- 6. After the three (3) year Performance Evaluation period by the Company and approval by the Department, and until this Approval is modified, terminated, or superseded by a General Use Certification, the System Owner shall comply with the following monitoring requirements if the System is subject to a total nitrogen concentration limit in accordance with Section C Paragraph (3).
 - a) Year-round properties shall be inspected and sampled for at least the TN parameter a minimum of twice/year, at least 5 months apart and with at least one sample taken between December 1 and March 1 of each year. Field testing shall be completed as determined necessary by the System operator, see *DEP Field Testing Protocol* at <https://www.mass.gov/files/documents/2016/08/wp/testsamp.pdf>. Water meter readings shall be recorded at each inspection, see "Flow Metering" below.
 - b) Seasonal properties shall be sampled for at least the TN parameter a minimum of twice/year. At least one annual sample must be taken 30 to 60 days after each seasonal occupancy. A second sample must be taken no less than 2 months after the first sample. Field testing of the System shall be completed as determined necessary by the operator. Water meter readings shall be recorded at each inspection, see "Flow Metering" below.

- 7. Flow Metering - At a minimum, for all systems installed prior to this Approval, water meter flow data shall be recorded each time the system is inspected and sampled by the System Operator. For

systems installed after the effective date of this Approval, wastewater flow data shall be recorded each time the system is inspected and sampled by the System Operator and may be based on:

- a) actual metering data of wastewater flow to the system; or
 - b) actual water meter data for the total facility with either metered or estimated flows for non-wastewater flow subtracted from the total facility water usage. If estimating the wastewater flow as a portion of total metered water usage, the Service Contractor shall provide the method of estimating, such as pump run times, occupancy rates, adjusting for seasonal outdoor water use, etc.
8. Field Testing: Turbidity, pH and Apparent Color - Turbidity, pH, DO and apparent color shall be completed when determined necessary by the operator. See applicable sections of the Department's *Field Testing Protocol* at <https://www.mass.gov/files/documents/2016/08/wp/testsamp.pdf>.
9. At a minimum, the System Operator/Service Contractor shall inspect, properly operate, and properly maintain the System:
- a) any time there is System failure, or an alarm event;
 - b) in accordance with the approved O&M manual and Designer requirements;
 - c) in accordance with the requirements of the Local Approving Authority;
 - d) in accordance with this Approval; and
 - e) for seasonal use, the Service Contractor shall be on-site and responsible for the proper start-up and shut down of the Alternative System. The System Operator shall collect samples and obtain analysis results from an approved lab, perform field testing required by the Approval and submit results within 60 days of the site visit to the System owner.
10. If the Company successfully demonstrates the effectiveness of the System to reduce nitrogen loadings during the Performance Evaluation period, a minimum of three years, the System Owner shall operate the System subject to the requirements of the General Use Certification, if issued, for this technology.

D. Special Conditions for Systems 2,000 to less than 10,000 GPD

The Technology is approved for use with a System serving a facility with a minimum design flow of 2,000 gallons per day and a maximum design flow less than 10,000 gallons per day (GPD), subject to the following additional conditions:

1. The approved technology may be substituted for the RSF as a required component of a System designed to serve a facility or facilities with a design flow of 2,000 gpd or more to be located in a Nitrogen Sensitive Area in accordance with the requirements of 310 CMR 15.202. When substituted for the RSF, the design, installation, use, and operation of the System shall comply with all the conditions of 310 CMR 15.202(1) to 15.202(5) applicable to an RSF or an equivalent alternative technology, except those provisions that specifically have been varied by the conditions of the Approval.

Effluent Limits and Monitoring Requirements for Systems 2,000 to 10,000 GPD,

2. If the System is installed to serve new construction in an area that is subject to the Nitrogen Loading Limitations of 310 CMR 15.214 and the facility does not meet with the Nitrogen Loading Limitations pursuant to the aggregation provisions of 310 CMR 15.216, the System shall not be designed to receive and shall not receive more than 440 gallons of design flow per day per acre (gpda), except an increase in the flow rate per acre is allowed up to a design flow up to 550 gpda provided that the facility meets a TN effluent limit of 25 mg/l or less.

The System Owner shall repair, replace, modify or take any other action as required by the Department or the local approving authority, if the Department or the local

approving authority determines that the System is not capable of meeting the total nitrogen concentration limits in the effluent.

Violations of the total nitrogen concentration in the System effluent shall not constitute a failure of the System for the purposes of reporting as required in Section B Paragraphs (13) and (14).

3. Effluent Total Nitrogen - The System shall not exceed a TN concentration of 25 mg/l in the System effluent.
4. Effluent BOD₅, TSS and pH - If the System is located in a Nitrogen Sensitive Area, the effluent discharge concentrations shall not exceed secondary treatment standards of 30 mg/L BOD₅ and 30 mg/L TSS and the effluent pH range shall be 6.0 to 9.0.
5. Prior to Department approval of the Company's Performance Evaluation Plan, the Company shall be responsible for the following monitoring requirements for all System installations that are subject to a total nitrogen concentration limit in accordance with Section D Paragraphs (2) and (3). Sampling shall include pH, BOD₅, TSS and TN, unless otherwise stated. Flow shall be recorded at each inspection, see "Flow Metering" below.
 - a) For year-round properties, if the facility is not in a Nitrogen Sensitive Area, the effluent shall be monitored monthly for 36 months and monitored thereafter for Total Nitrogen only on a quarterly basis. Reduced sampling shall also include Field Testing of System wastewater when determined necessary by the operator.
 - b) For year-round properties, if the facility is located in a Nitrogen Sensitive Area:
 - (i) For year-round properties, if the facility is located in a Nitrogen Sensitive Area, the effluent shall be monitored monthly for 36 months and monitored thereafter for pH, BOD₅, TSS and Total Nitrogen on a quarterly basis.
 - (ii) The influent shall be monitored quarterly for pH, BOD₅, TSS and Total Nitrogen for a minimum of 12 quarters.
 - c) Seasonal properties shall be inspected and sampled monthly only when occupied.

Properties occupied at least 6 months per year are considered year-round properties. Properties occupied less than 6 months per year are considered seasonal properties.
6. During the Performance Evaluation period, the Company shall follow the monitoring requirements specified in the Performance Evaluation Plan for installed Systems.
7. Upon completion of the Performance Evaluation, after the Performance Evaluation period by the Company, and until this Approval is modified, terminated, or superseded by a General Use Certification, the System Owner shall comply with the following monitoring requirements:
 - a) If the System is located in a Nitrogen Sensitive Area, the System Owner shall comply with the following monitoring requirements for TN:
 - (i) Year-round facilities shall be sampled a minimum of once/quarter, at least 2 months apart.

(ii) Seasonal properties shall be sampled a minimum of twice/year. At least one annual sample must be taken 30 to 60 days after occupancy. A second sample must be taken no less than 2 months after the first sample.

- b) If the System is subject to a total nitrogen concentration limit in accordance with Section D Paragraph (2), the System Owner shall monitor only total nitrogen according to the frequency requirements of Section D Paragraph (8)(a)(i & ii).
- c) Year-round properties, and seasonal facilities when occupied, shall be inspected a minimum of quarterly and sampled for at least the TN parameter. Field Testing of System wastewater shall be completed when determined necessary by the operator, see *DEP Field Testing Protocol* at <https://www.mass.gov/files/documents/2016/08/wp/testsamp.pdf>. Water meter readings shall be recorded at each inspection, see “Flow Metering” below.
- d) The System Owner shall not be required to monitor influent BOD₅, TSS, pH, and TN as specified in 310 CMR 15.202 (4)(c).

Properties occupied at least 6 months/year are considered year-round properties. Properties occupied less than 6 months/year are considered seasonal properties.

- 8. At a minimum, the Service Contractor shall inspect, properly operate, and properly maintain the System:
 - a) any time there is System failure, equipment failure, or an alarm event;
 - b) in accordance with the O&M manual and Designer requirements;
 - c) in accordance with the requirements of the Local Approving Authority;
 - d) in accordance with the Approval; and
 - e) for seasonal use, the Service Contractor shall be on-site and responsible for the proper start-up and shut down of the Alternative System.
- 9. Flow Metering – For Alternative Systems installed under Provisional Approval, wastewater flow data shall be reported each time the System is inspected and/or sampled by the Service Contractor. At a minimum, wastewater flow shall be based on:
 - a) actual water meter data of flow to fixtures that discharge to the wastewater system; or
 - b) actual water meter data for the total facility with either metered or estimated flows for non-wastewater flow subtracted from the total facility water usage. If estimating the wastewater flow as a portion of total metered water usage, the Service Contractor shall provide the method of estimating, such as pump run times, occupancy rates, adjusting for seasonal outdoor water use, etc.
- 10. Field Testing: pH, DO, turbidity and color shall be measured and/or recorded in the field when determined necessary by the operator. See applicable sections of the Department’s *Field Testing Protocol* at <https://www.mass.gov/files/documents/2016/08/wp/testsamp.pdf>.

E. Special Conditions Specific to the Company

- 1. The Approval shall only apply to model units with the same model designations specified in this approval and meet the same specifications, operating requirements, and

plans, as provided by the manufacturer at the time of the application. Any proposed modifications of the units shall be subject to the review of the Department for coverage under the Approval.

2. Prior to submission of an application for a DSCP, the Company shall provide to the Designer and the System Owner:
 - a) All design and installation specifications and requirements;
 - b) An operation and maintenance manual, including:
 - i) an inspection checklist;
 - ii) recommended inspection and maintenance schedule;
 - iii) monitoring (i.e. water use and power consumption) and sampling procedures, if any;
 - iv) alarm response procedures, if any, and troubleshooting procedures;
 - c) An owner's manual, including proper system use and alarm response procedures, if any;
 - d) Estimates of the Owner's costs associated with System operation including, when applicable: power consumption, maintenance, sampling, recordkeeping, reporting, and equipment replacement;
 - e) A copy of the Company's warranty; and
 - f) Lists of Designers, Installers, and Service Contractors.
3. The Company shall implement the Performance Evaluation Plan, as submitted and approved by the Department, and shall be responsible for all data collection and submissions to the Department until a final determination on the Performance Evaluation has been made by the Department.
4. Until a final determination has been made by the Department on a completed Performance Evaluation, the Company shall submit to the Department an annual report by February 15th of each year that includes the following:
 - a) a table of all sample data collected for all systems installed to date and all information required by the Department as part of the approved Performance Evaluation Plan;
 - b) status of preparation of a Performance Evaluation Plan if not yet provided to MassDEP, or any recommended changes to the approved Performance Evaluation Plan;
 - c) a list of pending applications for system installations which have been submitted to local approving authorities, and
 - d) identification of any System after start-up in violation of the Approval or not in compliance with any performance criteria at the time of the annual report, the reasons for the noncompliance and the status of any corrective actions that are needed, and
 - e) any recommendations and requests for changes to the system monitoring and reporting plan or the performance criteria of the Approval.

The report shall be signed by a corporate officer, general partner or the Company owner.

(Service Contractor records submitted to the Company should not be included with the annual report to the Department, but shall be made available to the Department within 30 days of a request by the Department.)

5. The Company shall institute and maintain a program of Installer training and continuing education that is at least offered annually. The Company shall maintain and annually update, and make available the list of qualified Installers by February 15th of each year. The Company shall certify that the Installers on the list have taken the training and passed the Company's training qualifications.

6. The Company shall institute and maintain a program of Designer training and continuing education, as approved by the Department. The Company shall maintain and annually update, and make available the list of qualified Designers by February 15th of each year. The Company shall certify that the Designers on the list have taken the training and passed the Company's training qualifications.
7. The Company shall institute and maintain a program of Operator training and continuing education, as approved by the Department. The Company shall maintain and annually update, and make available the list of qualified Operators by February 15th of each year. The Company shall certify that the Operators on the list have taken the training and passed the Company's training qualifications.
8. The Company shall not sell the Technology to an Installer unless the Installer is trained to install the System by the Company.
9. Prior to its sale of any System that may be used in Massachusetts, the Company shall provide the purchaser with a copy of the Approval with the System design, installation, O&M, and Owner's manuals. In any contract for distribution or sale of the System, the Company shall require the distributor or seller to provide the purchaser of a System for use in Massachusetts with copies of these documents, prior to any sale of the System.
10. Within 60 days of issuance by the Department of a revised Approval, the Company shall provide written notification of changes to the Approval to all Service Contractors servicing existing installations of the Technology and all distributors and resellers of the Technology.
11. The Company shall provide written notification to the Department's Director of the Wastewater Management Program at least 30 days in advance of the proposed transfer of ownership of the Technology for which the Approval is issued. Said notification shall include the name and address of the proposed owner containing a specific date of transfer of ownership, responsibility, coverage and liability between them.
12. The Approval shall be binding on the Company and its officers, employees, agents, contractors, successors, and assigns, including but not limited to dealers, distributors, and resellers. Violation of the terms and conditions of the Approval by any of the foregoing persons or entities, respectively, shall constitute violation of the Approval by the Company unless the Department determines otherwise.

IV. Certification and Notification Requirements

1. Thirty (30) days prior to submitting an application for a DSCP, the Company or its representative shall provide to the Approving Authority a certification, signed by the owner of record for the property to be served by the unit, stating that the property owner:
 - a) has been provided a copy of the Provisional Use Approval and all attachments and agrees to comply with all terms and conditions;
 - b) has been informed of all the owner's costs associated with the operation including power consumption, maintenance, sampling, recordkeeping, reporting, and equipment replacement;
 - c) understands the requirement for a contract with a company approved operator and has been provided a current list of all approved operators;
 - d) agrees to fulfill his responsibilities to provide a Deed Notice as required by 310 CMR 15.287(10) and the Approval; and

- e) agrees to fulfill his responsibilities to provide written notification of the Approval conditions to any new owner, as required by 310 CMR 15.287(5).
2. Upon submission of an application for a DSCP to the Approving Authority, the Company shall submit to the Approving Authority, with a copy to the Designer and the System Owner, a certification by the Company or its authorized agent that the design conforms to this Approval and that the proposed use of the System is consistent with the unit's capabilities and all Company requirements. The review shall include evaluation of the need for installation of water meter(s) at each facility. An authorized agent of the Company responsible for the design review shall have received technical training in the Company's products.
3. The System Designer shall be a Massachusetts Registered Professional Engineer, or a Massachusetts Registered Sanitarian provided that such Sanitarian shall not design a system with a discharge greater than 2,000 gallons per day.
4. Thirty (30) days prior to delivery of the treatment unit to the site for installation, the Company shall provide to the Approving Authority a copy of a signed contract for a minimum period of one year with a Company approved Operator and the initial Owner/Occupant of the property.
5. Prior to the commencement of construction, the System Installer must certify in writing to the Designer and the System Owner that (s)he has taken the Company's training, passed the Company's training qualifications, and is listed on the Company's list of Installers.
6. Prior to the issuance of a Certificate of Compliance by the Approving Authority:
 - a) In accordance with 310 CMR 15.021(3), the System Installer and Designer must certify in writing that the System has been constructed in compliance with 310 CMR 15.000, the approved design plans, and all local requirements, including any local approving authority site-specific requirements;
 - b) In accordance with 310 CMR 15.021(3), the Designer must certify in writing that any changes to the design plans have been reflected on as-built plans which have been submitted to the Approving Authority by the Designer;
 - c) As a condition of this Approval, the System Installer and Designer must certify to the Approving Authority in writing that the System has been constructed in compliance with the terms of this Approval;
 - d) An authorized agent of the Company must certify to the Approving Authority in writing that the installation was done by a qualified Installer approved by the Company and the installation conforms to this Approval. The authorized agent of the Company responsible for the inspection of the installation shall have received technical training in the Company's products; and
 - e) Prior to signing any agreement to transfer any or all interest in the property served by the system, or any portion of the property, including any possessory interest, the System Owner shall provide written notice, **as required by 310 CMR 15.287(5)** of all conditions contained in the Approval to the transferee(s). Any and all instruments of transfer and any leases or rental agreements shall **be** included as an exhibit attached thereto and made a part thereof of a copy of the Approval for the System. The System Owner shall send a copy of such written notification(s) to the Local Approving Authority within 10 days of such notice to the **transferee(s)**.

V. Standard Conditions

1. The provisions of 310 CMR 15.000 are applicable to the design, installation, use and operation of a System utilizing an approved or certified alternative technology, except those provisions that specifically have been varied by the conditions of this Approval.

2. The design, installation, and use of the System must conform to the terms and conditions of the Approval and the Department approved attachments.
3. The facility served by the System and the System itself shall be open to inspection and sampling by the Department and the local approving authority at all reasonable times.

Standard Conditions Applicable to the System Owner

4. This Approval shall be binding on the System Owner and on its agents, contractors, successors, and assigns. Violation of the terms and conditions of this Approval by any of the foregoing persons or entities, respectively, shall constitute violation of this Approval by the System Owner unless the Department determines otherwise.
5. The System Owner shall obtain all necessary permits and approvals required by 310 CMR 15.000 prior to the installation and use of the System in Massachusetts.
6. The System is approved for the treatment and disposal of sanitary sewage only. The System Owner shall not introduce any wastes that are not sanitary sewage into the System. The System Owner shall dispose of wastes generated or used at the facility that are not sanitary sewage by other lawful means.
7. Prior to issuance of the Certificate of Compliance and after recording and/or registering the Deed Notice required by 310 CMR 15.287(10), the System Owner shall submit the following to the Local Approving Authority: (i) a certified Registry copy of the Notice bearing the book and page/or document number; and (ii) if the property is unregistered land, a Registry copy of the System Owner's deed to the property, bearing a marginal reference on the System Owner's deed to the property. The Notice to be recorded shall be in the form of the Notice provided by the Department.
8. The System Owner shall at all times have the installed System properly operated and maintained in accordance with the most recent O&M provisions of this Approval for the alternative technology and in accordance with any additional requirements of the Approving Authority. The most recent O&M provisions of this Approval for the alternative technology are available from the Department.
9. The System Owner shall furnish the Department any information that the Department requests regarding the System, within 21 days of the date of receipt of that request.

Standard Conditions Applicable to the Designer

10. The Designer shall be a Massachusetts Registered Professional Engineer or a Massachusetts Registered Sanitarian, including when designing systems for repair, provided that such Sanitarian shall not design a system to discharge more than 2,000 gallons per day.
11. Prior to the application for a DSCP, the Designer shall provide the System Owner with a copy of this Approval.

Standard Conditions Applicable to the Company

12. This Approval shall be binding on the Company and its officers, employees, agents, contractors, successors, and assigns. Violation of the terms and conditions of this Approval by any of the foregoing persons or entities, respectively, shall constitute violation of this Approval by the Company unless the Department determines otherwise.
13. The Company shall include copies of the Approval with each System that is sold. In any contract

executed by the Company for distribution or re-sale of the System, the Company shall require all vendors, distributors, and resellers to provide each purchaser of the System with copies of the Approval.

14. The Company shall make available, in printed and electronic format, the approved Attachments and any approved updates associated with the Approval, to the System Owners, Operators, Designers, Installers, vendors, resellers, and distributors of the System.
15. The Company shall submit to the Department for approval any proposed updates or changes to the Attachments to the Approval.
16. The Company shall notify all System Owners, resellers, and distributors of changes to the Approval within 60 days of issuance by the Department.
17. The Company shall notify the Department's Director of the Wastewater Management Program at least 30 days in advance of the proposed transfer of ownership of the Technology for which the Approval is issued. Said notification shall include the name and address of the proposed owner
18. containing a specific date of transfer of ownership, responsibility, coverage and liability between them. All provisions of the Approval applicable to the Company shall be applicable to successors and assigns of the Company, unless the Department determines otherwise.
19. The Company shall furnish the Department any information that the Department requests regarding the Technology within 21 days of the date of receipt of that request.

Approval Continuation and Expiration

20. If the Company wishes to continue the Approval after its expiration date, the Company shall apply for and obtain a renewal of the Approval. The Company shall submit a renewal application at least 180 days before the expiration date of the Approval, unless written permission for a later date has been granted in writing by the Department. Upon receipt of a timely and complete renewal application, the Approval shall continue in force until the Department has acted on the renewal application.

Reporting

21. All notices and documents required to be submitted to the Department by the Approval shall be submitted to:
Director
Wastewater Management Program Department of Environmental Protection
100 Cambridge St., Suite 900
Boston, Massachusetts 02114

Rights of the Department

22. The Department may suspend, modify or revoke the Approval for cause, including, but not limited to, noncompliance with the terms of the Approval, non-payment of any annual compliance assurance fee, for obtaining the Approval by misrepresentation or failure to disclose fully all relevant facts or any change in or discovery of conditions that would constitute grounds for discontinuance of the Approval, or as necessary for the protection of public health, safety, welfare, or the environment, and as authorized by applicable law. The Department reserves its rights to take any enforcement action authorized by law with respect to the Approval and/or a System utilizing the Technology against the Company, the Designer, the System Owner, the Installer, and/or the Operator of the System.

VI. General Conditions

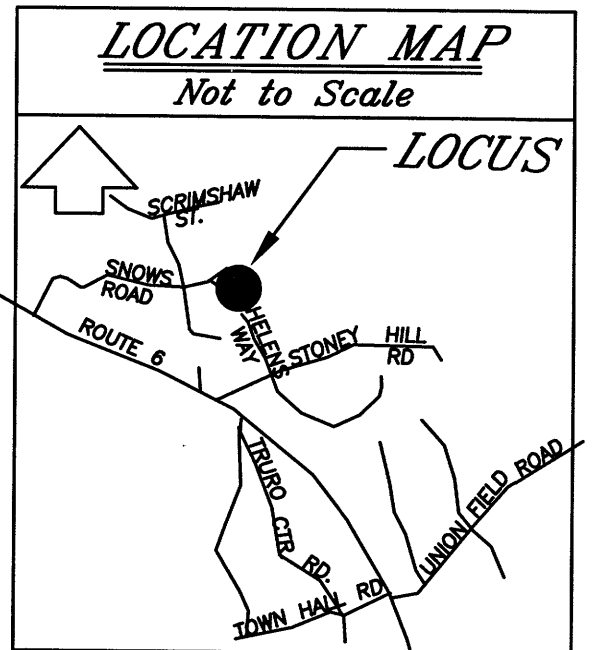
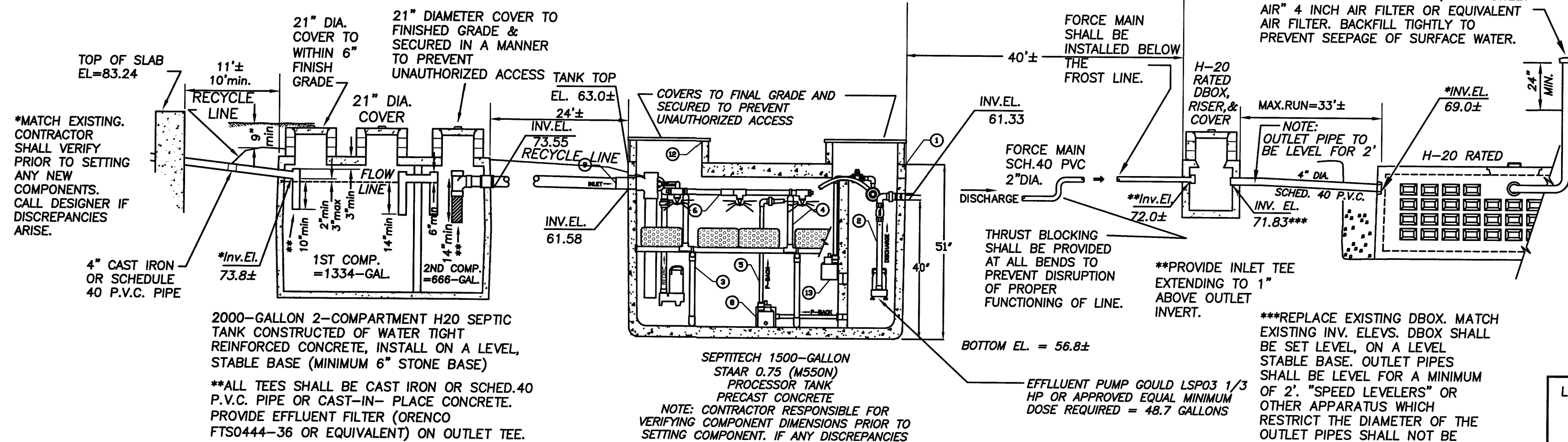
Title 5 Regulations 310 CMR 15.287: “General Conditions for Use of Alternative Systems Pursuant to 310 CMR 15.284 through 15.286”

“The following conditions shall apply to all uses of alternative systems pursuant to 310 CMR 15.284 through 15.286:

- (1) All plans and specifications shall be designed in accordance with 310 CMR 15.220.
- (2) Any required operation and maintenance, monitoring and testing plans shall be submitted to the Department and approved prior to initiation of the use. Monitoring and sampling shall be performed in accordance with a Department approved plan. Sample analysis shall be conducted by an independent U.S. EPA or Commonwealth of Massachusetts approved testing laboratory, or an approved independent university laboratory, unless otherwise provided in the Department's written approval. It shall be a violation of 310 CMR 15.000 to omit from a report or falsify any data collected pursuant to an approved testing plan.
- (3) The facility served by the alternative system and the system itself shall be open to inspection and sampling by the Department and the Local Approving Authority at all reasonable times.
- (4) The Department and/or the Local Approving Authority may require the owner or operator of the system to cease operation of the system and/or to take any other action necessary to protect public health, safety, welfare and the environment.
- (5) The owner or operator shall provide written notice to any new owner or operator that the system is an alternative system. Such notice shall include notice of the general conditions and any special conditions applicable to the system and its owner.
- (6) The owner or operator, or the proponent of the alternative system, shall obtain and provide the Department with a determination from the board of certification of operators of wastewater treatment facilities established pursuant to M.G.L. c. 21, § 34A as to whether a certified operator is required for operation of the alternative system. The Department shall waive this requirement if it has on file a determination for the alternative system, and shall notify the owner, operator, or proponent of the determination.
- (7) It is a violation of 310 CMR 15.000 to install, construct, or operate an alternative system except in full compliance with the written approval and 310 CMR 15.287.
- (8) The Department may require the issuance of a groundwater discharge permit pursuant to 314 CMR 5.00 (groundwater discharge program) for any alternative system.
- (9) The system owner shall maintain an operation and maintenance contract with a Massachusetts certified operator where one is required by 257 CMR 2.00, or otherwise with a person qualified to operate and maintain the system in accordance with the Department's written approval.
- (10) Prior to obtaining a Certificate of Compliance for installation of a new or upgraded system, the system owner shall record in the chain of title for the property served by the alternative system in the Registry of Deeds or Land Registration Office, as applicable, a Notice disclosing both the existence of the alternative on-site system and the Department's approval of the system. The system owner shall also provide evidence of such recording to the Local Approving Authority.

TYPICAL SYSTEM PROFILE

NOT TO SCALE



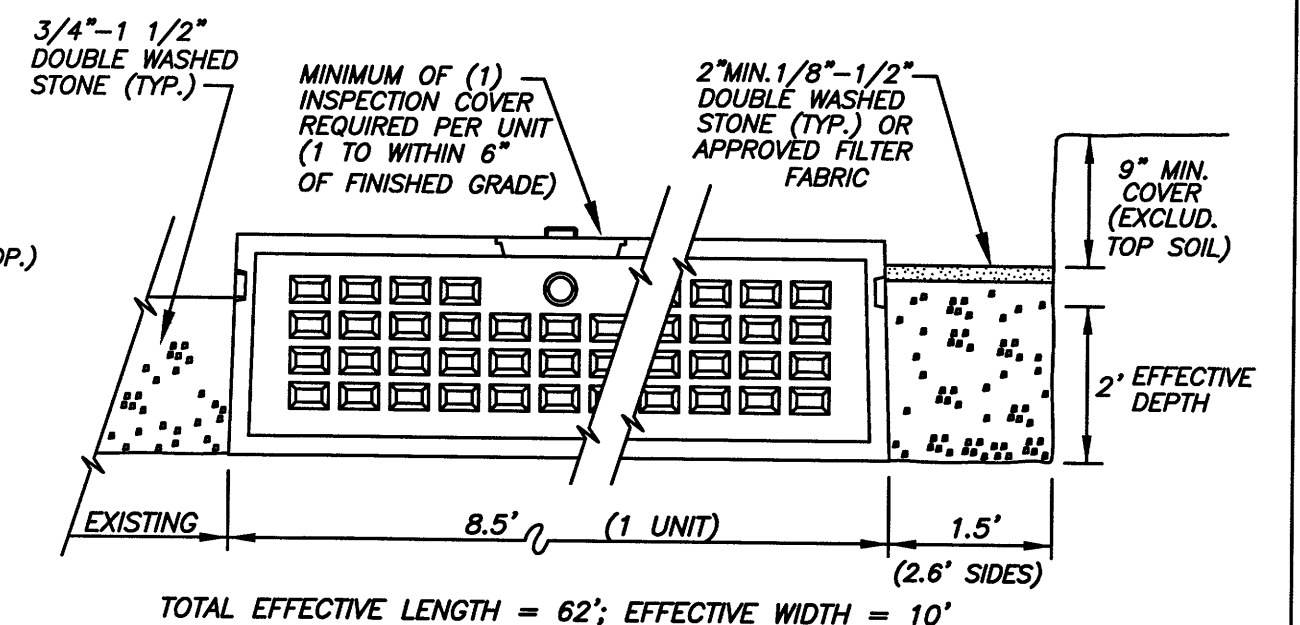
REFERENCE
ASSR'S MAP 46, PCL. 376
PL. BK. 577, PG. 97
PL. BK. 464, PG. 67

LOCAL UPGRADE APPROVAL IS REQUIRED TO ALLOW:

1. PROPOSED SEPTIC TANK TO BE APPROXIMATELY 6' BELOW GRADE. (3' VARIANCE FROM 310 CMR 15.221 (7))
2. PROPOSED SEPTIC TANK TO BE LOCATED APPROXIMATELY 7' FROM A SLAB. (3' VARIANCE FROM 310 CMR 15.211 (1))

ABSORPTION CHAMBER DETAIL (H-20)

(500-GAL. "ACME PRECAST" UNITS H-20 RATED, OR EQUAL)
NOT TO SCALE



LEGEND

- TEST HOLE LOCATION
- EXISTING CONTOUR
- H-20 DISTRIBUTION BOX (PROP.)
- SeptiTech PROCESSOR
- SEPTIC TANK
- 62' X 10' X 2' ABSORPTION CHAMBER SYSTEM
- C.B. CONCRETE BOUND
- APPROXIMATE WELL LOCATION

DESIGN DATA

EXISTING = 5
NUMBER OF BEDROOMS: PROPOSED = 1
ESTIMATED DAILY EFFLUENT: 660 GPD
TOTAL LEACHING AREA AS PROPOSED:
SIDEWALL: $2(L+W) \times D = 288 \text{ S.F.}$
BOTTOM: $L \times W = 620 \text{ S.F.}$
LEACHING CAPACITY AS PROPOSED:
(EFFLUENT LOADING RATE = 0.74 GPD/SF)
SIDEWALL: 213 G.P.D.
BOTTOM: 459 G.P.D.
TOTAL = 672 G.P.D.

GENERAL NOTES:

1. SYSTEM IS DESIGNED IN ACCORDANCE WITH "COMMONWEALTH OF MASS., DEPT. OF ENVIRONMENTAL PROTECTION, 310 CMR 15.00: THE STATE ENVIRONMENTAL CODE, TITLE 5: STANDARD REQUIREMENTS FOR THE SITING, CONSTRUCTION, INSPECTION, UPGRADE AND EXPANSION OF ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS" AND THE TOWN OF TRURO REGULATIONS, EXCEPT AS NOTED.
2. PRIOR TO BACKFILLING COMPLETED SYSTEM, NOTIFY THE ENGINEER AND THE HEALTH DEPARTMENT FOR INSPECTION. PROVIDE 24 HOURS (MIN.) NOTICE.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATION.
4. ANY CHANGES TO THIS PLAN MUST BE APPROVED BY THE BOARD OF HEALTH.
5. THROUGHOUT ITS LIFE, THE SEPTITECH SYSTEM (PROVISIONAL USE) SHALL BE UNDER AN OPERATION AND MAINTENANCE AGREEMENT IN ACCORDANCE WITH THE CONDITIONS OF THE TRURO BOARD OF HEALTH.

TEST HOLE DATA

DATE OF TEST HOLES: 12/6/2002
NO WATER ENCOUNTERED
INSP. BY: A. Cabral, S. Rask (HEALTH DEPT)

No. 1				No. 2			
DEPTH (IN.)	SOIL HORIZON	SOIL TEXTURE	ELEVATION (FT.)	DEPTH (IN.)	SOIL HORIZON	SOIL TEXTURE	ELEVATION (FT.)
0 - 12	A	LOAMY SAND	76.0 - 75.0	0 - 12	A	LOAMY SAND	73.7 - 72.7
12 - 36	B	LOAMY SAND	75.0 - 73.0	12 - 36	B	LOAMY SAND	72.7 - 70.7
36 - 138	C	MEDIUM SAND	73.0 - 64.5	36 - 138	C	MEDIUM SAND	70.7 - 62.2

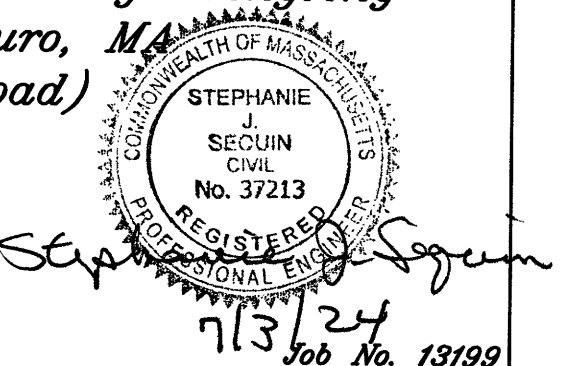
TOP OF PERC AT 78" (C-LAYER) <2MIN./IN.

PROPOSED SEPTIC SYSTEM EXPANSION

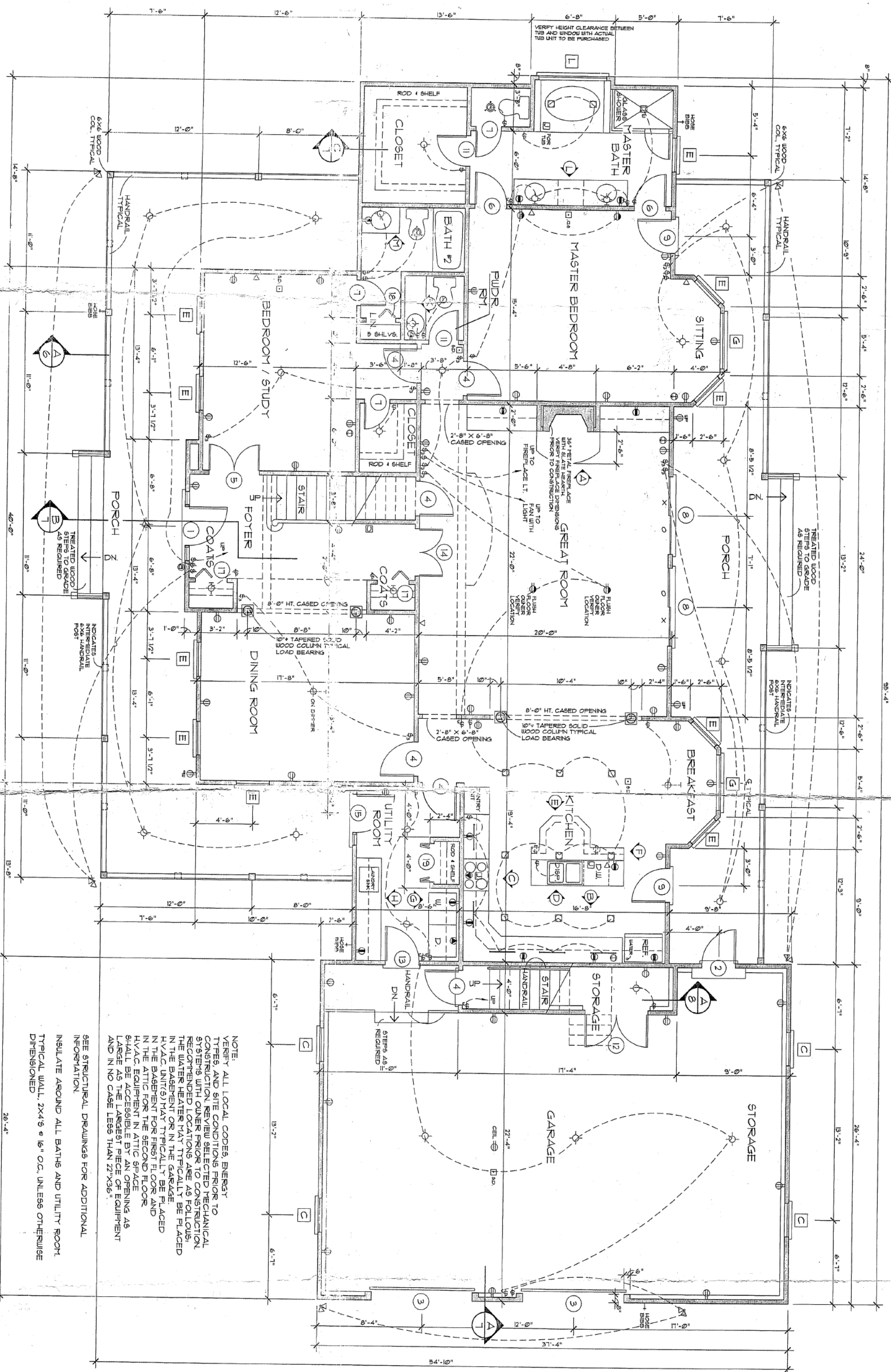
Prepared for: Zachary Luster and Edwige Yingling
Location: 2 Adams Way, - Truro, MA
(A.K.A. 17 Snow's Road)

Ryder & Wilcox, Inc., P.E. & P.L.S.
3 Ciddiah Hill Rd.
P.O. Box 439
So. Orleans, MA, 02662
Tel. (508) 255-8312
Fax. (508) 240-2306

Scale: 1" = 30'
Drawn by SMM, CCE
Date - July 3, 2024



Job No. 13199



FIRST FLOOR PLAN

FIRST FLOOR _____ 2316 sq. ft.
SECOND FLOOR _____ 1722 sq. ft.
TOTAL LIVING _____ 3038 sq. ft.
GARAGE & STORAGE _____ 954 sq. ft.
BONUS ROOM _____ 536 sq. ft.
BASEMENT _____ 2368 sq. ft.

DOOR SCHEDULE

MARK	SIZE	DESCRIPTION	PLAN
1	$2\text{-}6^{\circ} \times 6\text{-}8^{\circ} \times 1\text{3/4}^{\circ}$	EXT. H.D. (2) 1/2 SIDELTS. 14" 16x46	1
2	$2\text{-}6^{\circ} \times 1\text{-}0^{\circ}$	INTERIOR HARDWOOD	1
3	$6\text{-}0^{\circ} \times 1\text{-}0^{\circ}$	CARDER DOOR	2
4	$2\text{-}6^{\circ} \times 6\text{-}8^{\circ} \times 1\text{3/8}^{\circ}$	INTERIOR HARDWOOD	1
5	$\text{FR. } 1\text{-}0^{\circ} \times 6\text{-}8^{\circ} \times 1\text{3/8}^{\circ}$	INTERIOR HARDWOOD	1
6	$2\text{-}6^{\circ} \times 6\text{-}8^{\circ} \times 1\text{3/8}^{\circ}$	INTERIOR HARDWOOD	3
7	$2\text{-}6^{\circ} \times 6\text{-}8^{\circ} \times 1\text{3/8}^{\circ}$	INTERIOR HARDWOOD	3
8	$6\text{-}0^{\circ} \times 6\text{-}8^{\circ} \times 1\text{3/4}^{\circ}$	EXT. H.D. 6" SLUNG 6" 16x46	2
9	$2\text{-}6^{\circ} \times 6\text{-}8^{\circ} \times 1\text{3/4}^{\circ}$	EXT. H.D. 6" 16x46	2
10	$2\text{-}6^{\circ} \times 6\text{-}8^{\circ} \times 1\text{3/4}^{\circ}$	INTERIOR BI-FOLD	2
11	$2\text{-}6^{\circ} \times 6\text{-}8^{\circ} \times 1\text{3/8}^{\circ}$	INTERIOR HARDWOOD	3
12	$\text{FR. } 2\text{-}6^{\circ} \times 6\text{-}8^{\circ} \times 1\text{3/8}^{\circ}$	INTERIOR HARDWOOD	1
13	$2\text{-}6^{\circ} \times 6\text{-}8^{\circ} \times 1\text{3/4}^{\circ}$	EXT. H.D. 6" 16x46	1
14	$\text{FR. } 1\text{-}0^{\circ} \times 6\text{-}8^{\circ} \times 1\text{3/4}^{\circ}$	INTERIOR HARDWOOD	1
15	$3\text{-}6^{\circ} \times 6\text{-}8^{\circ} \times 1\text{3/4}^{\circ}$	EXT. H.D. 6" 16x46	1
16	$3\text{-}6^{\circ} \times 6\text{-}8^{\circ} \times 1\text{3/4}^{\circ}$	EXT. H.D. 6" 16x46	1
17	$2\text{-}6^{\circ} \times 6\text{-}8^{\circ} \times 1\text{3/8}^{\circ}$	INTERIOR BI-FOLD	2
18	$2\text{-}6^{\circ} \times 6\text{-}8^{\circ} \times 1\text{3/8}^{\circ}$	INTERIOR BI-FOLD	2
19	$3\text{-}6^{\circ} \times 6\text{-}8^{\circ} \times 1\text{3/4}^{\circ}$	INTERIOR BI-FOLD	1

WINDOW SCHEDULE

MARK	ROLL	OPENING	DESCRIPTION	PELLA NO.	QUAN.
A	2-5	1/4" X 5-3/4" 1/2"	DOUBLE HANG	382456 UFT	3
B	2-5	1/4" X 1-5-3/4"	CORNER HEAD	382456 UFT	4
C	2-5	1/4" X 5-3/4" 1/2"	DOUBLE HANG	382456 UFT	4
D	5-6	X 1-5-3/4" 1/2"	DOUBLE HANG	782456 UFT	4
E	2-5	1/4" X 6-3/4" 1/2"	DOUBLE HANG	782456 UFT 60" TRANS	10
F	2-5	1/4" X 4-3/4" 1/2"	DOUBLE HANG	382222 UFT	2
G	2-5	1/4" X 6-3/4" 1/2"	DOUBLE HANG	382222 UFT	2
H	6-7	1/2" X 5-3/4" 1/2"	PICTURE	48483 UFT 60" TRANS	2
I	3-27	ROD/SLIP	CORNER HEAD	382456 UFT	1
J	1-27	1/2" X 5-6-5/8"	CORNER HEAD	382456 UFT	4
K	2-5	1/4" X 5-3/4" 1/2"	PICTURE	66661 UFT	1

NOTE: VERIFY ALL LOCAL CODES, ENERGY TYPES, AND SITE CONDITIONS PRIOR TO CONSTRUCTION. REVIEW SELECTED MECHANICAL SYSTEMS WITH OWNER PRIOR TO CONSTRUCTION. THE UNDERGROUND LOCATIONS ARE AS FOLLOWS:

THE WASTEWATER IN THE COLLECTOR BE PLACE IN THE BASEMENT OR IN THE GROUND.

HVAC UNIT(S) MAY TYPICALLY BE PLACED IN THE BASEMENT FOR FIRST FLOOR AND IN THE ATTIC FOR THE SECOND FLOOR.

HVAC EQUIPMENT IN ATTIC SPACE SHALL BE ACCESSIBLE BY AN OPENING AS LARGE AS THE LARGEST PIECE OF EQUIPMENT AND IN NO CASE LESS THAN 27"x36".

INSULATE AROUND ALL BATHS AND UTILITY ROOM.
TYPICAL WALL, 2X4'S @ 16" O.C., UNLESS OTHERWISE
DIMENSIONED

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	DAY OR NIGHT (GLOWING) LIGHT
	WEATHER-PROOFED OUTLET
	BALL SWITCH CONTROLLED ON/OFF LIGHT
	AUTOMATIC LIGHT
	ON/OFF SWITCH
	240 VOLT ON/OFF CONNECTION
	THERMOSTATIC ON/OFF LIGHT
	THERMOSTATIC ON/OFF CONNECTION
	DOOR CHIME LOCATION
	DOOR BELL LOCATION
	NO. 10/12 JUNCTION BOX
	60/100 WATT BALL SWITCH
	3-WAY WALL SWITCH
	CEILING MOUNTED LIGHT FIXTURE
	WALL BRACKET MOUNTED LIGHT FIXTURE
	SUSPENDED CEILING MOUNTED LIGHT FIXTURE
	RECESSED CEILING MOUNTED LIGHT FIXTURE
	RECESSED CEILING LIGHT FIXTURE
	CEILING LIGHT FIXTURE
	ONE WATT LIGHT
	RECESSED CEILING MOUNTED LIGHT FIXTURE WITH WEATHER-PROOFED CABLE ARM AND FLOOD LIGHT
	CEILING MOUNTED FAN - NO GFCI
	CEILING MOUNTED FAN - NO GFCI WITH EXHAUST
	CEILING MOUNTED FAN AND EXHAUST
	PORCELAIN LUMINAIRES
	DOOR BELL STATION
	DOOR CHIME
	CEILING MOUNTED FAN LIGHT AND HEATER

ALL FEDERAL, STATE, AND LOCAL
CODES, ORDINANCES, REGULATIONS
ETC. SHALL BE CONSIDERED AS PART
OF SPECIFICATIONS FOR THIS BUILDING
AND SHALL TAKE PREFERENCE OVER
ANYTHING SHOWN, DESCRIBED, OR
IMPLIED WHERE SAME ARE AT VARIANCE

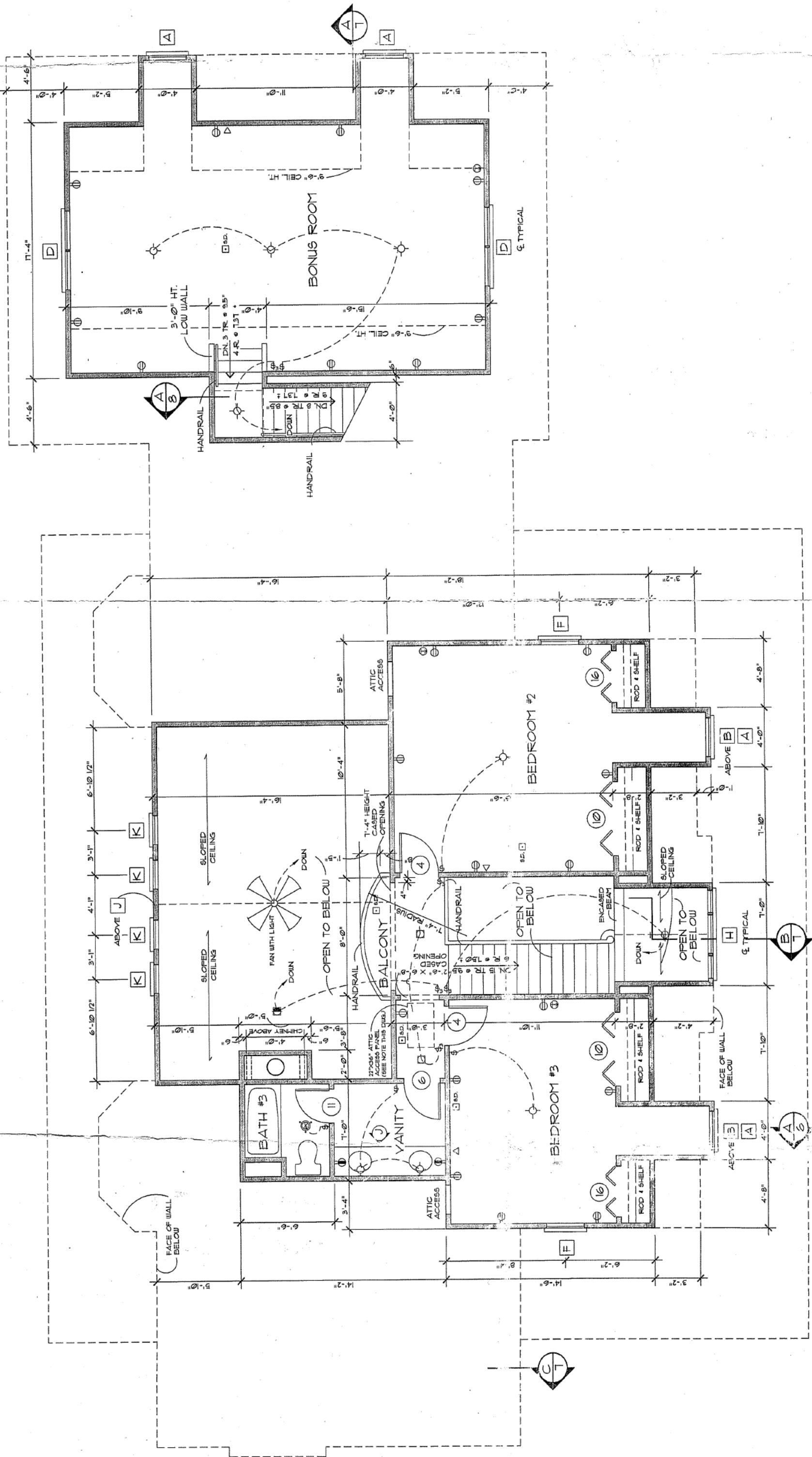
NOTE:
VERIFY ALL LOCAL CODES, ENERGY
TYPES, AND SITE CONDITIONS PRIOR TO
CONSTRUCTION. REVIEW SELECTED MECHANICAL
SYSTEMS WITH OWNER PRIOR TO CONSTRUCTION.
CONTRACTOR SHALL BE RESPONSIBLE FOR
THE WATER HEATER THAT IS TYPICALLY BE PLACED
IN THE BASEMENT OR IN THE GARAGE.
HVAC UNITS MAY TYPICALLY BE PLACED
IN THE BASEMENT FOR FIRST FLOOR AND
IN THE ATTIC FOR SECOND FLOOR.
HVAC EQUIPMENT IN ATTIC SPACE
SHALL BE ACCESSIBLE BY AN OPENING AS
LARGE AS THE LARGEST PIECE OF EQUIPMENT
AND IN NO CASE LESS THAN 27"x36".

SEE STRUCTURAL DRAWINGS FOR ADDITIONAL
INFORMATION.

INSULATE AROUND ALL BATHS AND UTILITY ROOM.
TYPICAL WALL, 2X4 S @ 16" O.C. UNLESS OTHERWISE
DIMENSIONED

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SECOND FLOOR PLAN 1/4" = 1'-0"

Complete the highlighted cells as applicable.

Section 1: Runoff						
Land Use/Nitrogen Source	Area (square feet)	Nitrogen Loading Input	(units)	Recharge Rate	(units)	Volume (L/day)
Lot size (total)	50585					
Building Roof Area	5251.3	0.75	mg/L	40	inches/year	1358.0
Total footprint of all buildings on the property						
Road/Driveway/Impervious Area	1070	1.5	mg/L	40	inches/year	276.7
Footprint of paved/ impervious areas including driveways, parking areas, and impervious patios. Impervious areas include gravel, shell, and crushed stone pathways or driveways or parking areas						
Lawn Size	1900	3 lbs N/1,000 sq ft - 25% leaching rate		17	inches/year	208.8
Lawn areas defined as ground covered with grass or other vegetation that is mowed more than twice a year. The minimum lawn size for nitrogen loading calculations is 1,000 sq. ft.						
Other/Miscellaneous	0	0	mg/L	17	inches/year	0.0
For any other potential sources of nitrogen on the property. Inputs must be approved by the health agent.						
Natural/Undisturbed Areas	42363.7	0.05	mg/L	17	inches/year	4656.0
Calculated by subtracting roof, road/impervious areas, and lawn areas from total lot size.						
Subtotal: Runoff						6499.5
						3438.8

Section 2: Wastewater					19	
Do you have an Innovative/Alternative Septic System (Yes/No)?		Yes		If "Yes", what is the nitrogen concentration of the system (in units of mg/L), based on the DEP Alternative System Approval Letter? (See https://www.mass.gov/guides/innovative-technology-and-title-5-systems)		
				Nitrogen Load (mg/day)		
				Volume (L/day)		
Title 5 Design Flow	Approved Number of Bedrooms?	6	Based on Title 5 (310 CMR 15.203): Each bedroom is assumed to have associated with it 110 gallons per day of flow.		47463.9	
Average Wastewater Flow	The average wastewater flow method assumes 2.3 people and an average flow of 55 gallons per day per person.			478.8	9097.2	
			Nitrogen Load (mg/day)		Load (ppm)	
			Volume (L/day)			
Total nitrogen load (including runoff and wastewater)		Title 5		8997.6	50902.7	5.7
		Average		6978.3	12536.1	1.8
Average Nitrogen Load					3.73 ppm	

Complete the highlighted cells as applicable.

Section 1: Runoff						
Land Use/Nitrogen Source	Area (square feet)	Nitrogen Loading Input	(units)	Recharge Rate	(units)	Nitrogen Load (mg/day)
Lot size (total)	50585					
Building Roof Area	5251.3	0.75 mg/L	40 inches/year			1018.5
Total footprint of all buildings on the property						
Road/Driveway/Impervious Area	1070	1.5 mg/L	40 inches/year			415.1
Footprint of paved/ impervious areas including driveways, parking areas, and impervious patios. Impervious areas include gravel, shell, and crushed stone pathways or driveways or parking areas						
Lawn Size	1900	3 lbs N/1,000 sq ft - 25% leaching rate	17 inches/year			1772.5
Lawn areas defined as ground covered with grass or other vegetation that is mowed more than twice a year. The minimum lawn size for nitrogen loading calculations is 1,000 sq. ft.						
Other/Miscellaneous	0	0 mg/L	17 inches/year			0.0
For any other potential sources of nitrogen on the property. Inputs must be approved by the health agent.						
Natural/Undisturbed Areas	42363.7	0.05 mg/L	17 inches/year			232.8
Calculated by subtracting roof, road/impervious areas, and lawn areas from total lot size.						
Subtotal: Runoff					6499.5	3438.8

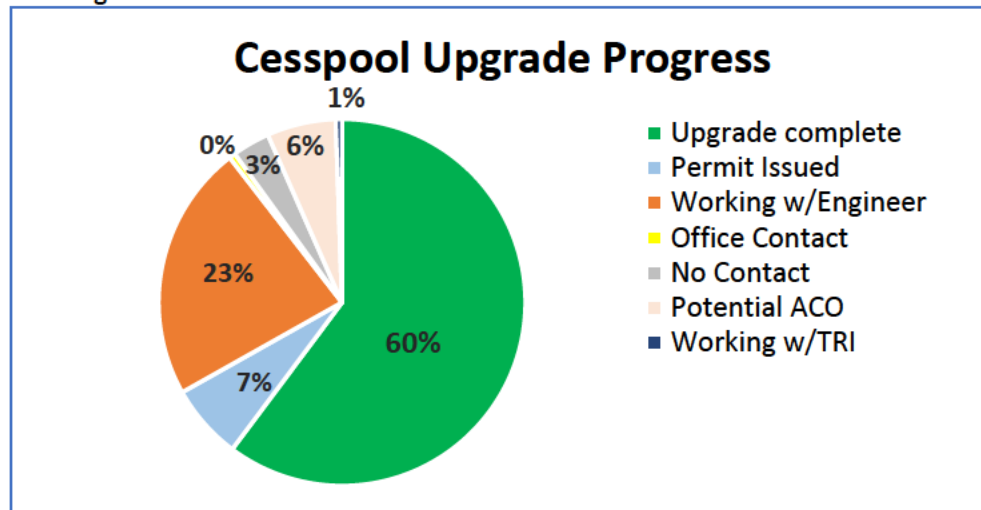
Section 2: Wastewater				If "Yes", what is the nitrogen concentration of the system (in units of mg/L), based on the DEP Alternative System Approval Letter? (See https://www.mass.gov/guides/innovative-technology-and-title-5-systems)	
Do you have an Innovative/Alternative Septic System (Yes/No)?		No			
Title 5 Design Flow	Approved Number of Bedrooms?	5		Volume (L/day)	Nitrogen Load (mg/day)
Average Wastewater Flow		Based on Title 5 (310 CMR 15.203): Each bedroom is assumed to have associated with it 110 gallons per day of flow.		2081.8	72861.3
		The average wastewater flow method assumes 2.3 people and an average flow of 55 gallons per day per person.		478.8	16758.1
				Nitrogen Load (mg/day)	Load (ppm)
Total nitrogen load (including runoff and wastewater)		Title 5	8581.3	76300.1	8.9
		Average	6978.3	20196.9	2.9
Average Nitrogen Load				5.89 ppm	

Memo to: Truro Board of Health
 From: Emily Beebe, Truro Health & Conservation Agent
 Date: July 12, 2024
 Re: **Water Resources Update July 2024**



Regarding cesspool upgrades to Title 5

To date, 2/3 of the properties with cesspools have either completed the upgrade process or have permits issued to do so. 23% are working with engineers. Many of these have completed plans and are in the process of hiring an installer. Letters have been sent to these homeowners, so they are aware of the deadline for plans and installation permits. Three of the 11 properties eligible to enter into an ACO have been formally approved by the board. The other ACO properties will be on upcoming agendas. The remaining 4% of properties that have made no progress will be issued notices of violation filed with the Housing court.



Bucket	Count	Deadline
1	12	Installation by 9/1/2024 or 9 months from date of permit issuance
2	8	Completion of ACO by 9/1/2024
2a	3	Approved ACO
3	42	Plan complete by 5/1/2024, install within 9 months
4	7	12/31/2023



Regarding Administrative Consent Orders (ACOs). An ACO is the legal agreement between the Board of Health and a property owner regarding the timing of upgrades or connection to sewer facilities. Draft ACOs must be finalized September 1, 2024 by BoH approval of a variance to allow the agreement, using GPD value placeholder until the actual cost/gallon multiplier is determined by GHD. An update from Engineers at GHD will be included in the August update.

Regarding stormwater management— **(no new update, July 2024)**

Regarding changes to Title 5, and TMDL NSAs –

New (in 2023) watershed permit regulations are now a part of title 5 and include newly defined criteria for Nitrogen Sensitive Areas (NSA) estuarine watersheds on Cape Cod that have an EPA-approved Total Maximum Daily Load (TMDL) for nitrogen. These new NSAs have timeframes for compliance with approved watershed plans. On Wednesday July 3, a notice of intent was filed with the DEP by GHD on behalf of Truro for the portion of South Truro that is located in the Wellfleet Harbor Watershed. A public notice requirement was satisfied by publishing details of the filing”: 1. in the Environmental monitor, and, 2. in a newspaper of local circulation, and, 3. posting in the Town Hall for the municipality. The notice states that “the Town of Truro, MA has filed the Notice of Intent (NOI) to apply for a watershed permit for the Wellfleet Harbor watershed with the Massachusetts Department of Environmental Protection, Bureau of Water Resources – Watershed Permitting Program. This is a pre-Watershed Application form that allows the Town to submit a proposed schedule for obtaining watershed permits for the listed watersheds. Filing the NOI prevents commencement of the five-year time period in which Title 5 system upgrades would otherwise be required under 310 CMR 15.215(2)(a) and suspends the Title 5 upgrade requirements for new construction under 310 CMR 15.215(2)(b). Additional information regarding the Notice of Intent may be obtained by contacting Emily Beebe – Truro Health & Conservation Agent by calling (508)214-0919.”

The Wellfleet Harbor watershed public notice, and the Wellfleet Harbor Watershed Milestone Schedule are both available on the Health Department web page under the Wastewater Management tab.

You can find a report of the final Wellfleet Harbor Embayment System Total Maximum Daily Loads (TMDL) For Total Nitrogen at: <https://www.mass.gov/doc/final-total-nitrogen-tmdl-for-wellfleet-harbor/download>

East Harbor and the Pamet River are both impaired water bodies, but neither have a TMDL for nitrogen, however, to protect these resources the Town is working proactively, to align our planning process with the new regulations. We have contracted with the engineering firm GHD to prepare our Comprehensive wastewater management plan which will guide our wastewater management activities across town. It is likely that we will be moving into a watershed permit application process within several years for the Pamet River.

Regarding Wastewater Management Planning/ Water Resources discussion with Provincetown:

The Provincetown and Truro water resource planning staff team have continued to meet and plan for a joint meeting of the Provincetown Water and Sewer Board with the Select Boards of both towns in Truro before the end of September.

PFA's (Per- and Polyfluoroalkyl Substances) Update: There are hundreds of variants of these substances, which have been used since the 1940s in products such as firefighting foam, non-stick cookware, waterproofing sprays, and many others. The properties that made these substances good at what they were used for is the issue now. These compounds are very difficult to break down, so they persist in the environment, hence the name “forever chemicals.”

Transfer station monitoring wells tested positive for PFAS: All three nearby homes that were tested are negative for PFAS.

Truro Pond WQ testing-HABS and Cyanobacteria:

There are only 2 ponds in Truro that are not located in the Cape Cod National Seashore, the “Great Swamp” of Shearwater and the Village Pond on Pond Road; both are in North Truro. Neither of these ponds are used for recreational swimming and are therefore not defined as bathing beaches (Public

Bathing Beach means any bathing beach open to the general public, whether or not any entry fee is charged, that permits access to bathing waters).

A map of Truro's Ponds can be found at:

<https://www.truro-ma.gov/conservation-department/pages/ponds>

In other Towns, public landings on the shores of their Ponds provide the public access to the ponds, and they are regulated by the Town and State under the Massachusetts Sanitary code as "bathing beaches". The Cape Cod National Seashore (CCNS) is not governed by the State; therefore, our Sanitary code standards do not apply to the swimmable ponds in Truro. The CCNS does routinely perform water quality monitoring of their ponds, and they are quite mindful of so-called HABs (Harmful Algal Blooms) such as Cyanobacteria. In the event an algal bloom is observed and when cyanobacteria in particular is suspected, the CCNS works with APCC to sample and analyze the bloom. The CCNS and APCC include the Town in their communications tree to advise the public when cyanobacteria is present, and to ensure that public postings and notifications are coordinated and issued promptly.

The Town has an annual contract with APCC to regularly monitor and sample the Village Pond for cyanobacteria throughout the season.

Cyanobacteria Monitoring Bi-Weekly Update for Truro – Village Pond

Sampling for the week of: July 1, 2024

Report prepared for: Town of Truro

Report prepared by: May Lopopolo Report Reviewed by: Sophia Feuerhake

Sample collection by: Jacob Scola

For more information: [Cyanobacteria](#) | [Association to Preserve Cape Cod \(apcc.org\)](#)



Recent Activity

Pond	Sample Date	Pond Water Temp (F)	General Turbidity	Dominant Genus	BFC PC ave. (ug/L ⁺) *	Estimated BFC microcystin concentrations (ug/L ⁺)			Net growth rate (ud ⁺)			Cyano. Scum	Recent Activity	Current Risk Category
						MCY (Cl-) *	MCY *	MCY (Cl+) *	<50um	WLW	BFC			
Village Pond	7/3/2024	75.2	Slightly cloudy	N/A	2	-	-	-	-0.052	-0.050	-0.039	-	6/6/2024: Acceptable 6/20/24/Acceptable	Acceptable

***All BFC PC values rounded to the nearest whole number. Complete data set available upon request.**

Notes: Monitoring of Village Pond, Truro on July 3, 2024, found it to be in the Acceptable cyanobacteria risk category.



TOWN OF TRURO BOARD OF HEALTH

P.O. Box 2030
Truro MA 02666-0630

Board of Health Meeting Minutes: June 4, 2024

This was a hybrid meeting held in person at Truro Town Hall in the Select Board chambers and via Zoom. **Board members in attendance:** In person: Chair Tracey Rose, Board Members Brian Koll, Helen Grimm, and Tim Rose; Absent: Vice Chair Jason Silva and Alternate Candida Monteith; Also Present in person: Health Agent Emily Beebe

The meeting was called to order at 4:32 pm by the Chair, who described the remote meeting procedures and the process for public participation.

Public Comment: There was no public comment.

Recreation Camp License & Food Service Permit – 111 North Pamet Road, Camp Lightbulb, (renewal). Puck Markham represented Camp Lightbulb, a camp for LGBTQ youth that operates from the Youth Hostel on North Pamet Road. The camp started in 2011 in Provincetown and draws campers from all over the US and abroad. Activities are mainly housed at the youth hostel and include field trips to Provincetown. The camp will start on June 30th for two consecutive weeks. There were some mental health issues that affected the operation last year; this year offers a shorter season and will focus on those needs. The camp will host 35 campers per week. Chair Tracey Rose asked about additional mental health support. Puck explained that the counselors will undergo expanded mental health training and he has planned mental health check-ins part of the morning and evening medication procedure. There will be more opportunities for discussion groups and one-on-ones with counselors. The Agent asked if the check-ins extend to staff. Puck responded that yes, this would be part of the morning and evening meetings of the staff. They will try to get older more experienced staff but camp counselors tend to be younger. The Agent complimented the evolution of this process with this camp and stated that talking about these issues was good for everyone involved. Brian Koll asked if gun violence was a major stressor for the campers. Puck responded that more broadly, the political situation does have an impact but gun violence had not come up yet as an issue that the campers are concerned about. The Chair asked about where their mental health professionals come from. Puck responded that they have to be local under the regulatory requirements. Their professional for this camp comes from Outer Cape Health Services. The Chair noted that the application was complete. Brian Koll asked the Agent about the administration of medication and about how temperature sensitive medications were handled. The Agent responded that they are refrigerated and there is a process in the Camp manual for administration. **Motion:** Tim Rose moved to approve the application for a license to conduct a recreational camp for children and for a Food Service permit; **Second:** Helen Grimm; **Vote:** 4-0; the motion carried.

Draft Updates to the Truro Board of Health regulations, section 6, articles 3 & 10

The Agent explained the two short revisions. The language in Article 3(k) is to capture a

section that was inadvertently omitted in a previous revision. Article 10 eliminates the grandfathering of systems with future capacity when the lot exceeds nitrogen loading requirements. She explained that in 1994 and 1995 there had been a rush to install large systems with built-in future capacity ahead of the 1995 code change. The proposed change would eliminate the ability to now build into that excess capacity if nitrogen standards were exceeded by the increase. The board discussed and reworded Article 3(k) and will review a draft at a future meeting in preparation for a public hearing on the regulation change.

Minutes: April 16, 2024; **Motion:** Board member Helen Grimm moved to approve the April 16, 2024 meeting minutes as presented.; **Second:** Brian Koll; **Vote:** 3-0-1 with Board member Tim Rose abstaining.; May 7, 2024; **Motion:** Board member Tim Rose moved to approve the May 7, 2024 meeting minutes as presented; **Second:** Brian Koll; **Vote:** 3-0-1 with Chair Tracey Rose abstaining.

Report of the Chair

Theng chair reported that the Provincetown Water & Sewer Board would be meeting next week. She also announced that the terms for three Board of Health members were expiring. Helen Grimm and Brian Koll are reapplying to serve for another term, and alternate Candida Monteith will not be seeking reappointment.

Health Agent's Report

The Agent has received approval notices from DEP Division of Water Supply for both Stone's Throw Condominiums' PWS and Horton's Campground. Horton's and Adventure Bound campground will share a water supply. Details will be provided in an upcoming packet. The Agent recently spoke to a contractor inquiring about erosion control measures for the Cloverleaf project, and she expressed optimism that the project may soon commence permitting.

She will meet tomorrow with Scott Horsley, GHD, and Jarrod Cabral to discuss development of a 5-year forecast of financing for water and wastewater projects that would be eligible for funding through the State Revolving Fund. SRF This forecast was requested by the Cape Cod Commission for the Cape and Island Water Protection fund. The Board will meet on July 2, 2024 as scheduled.

Motion: Board member Tim Rose moved to adjourn the meeting; **Second:** Board member Helen Grimm; **Vote:** 4-0-0, the motion carried.

The meeting was adjourned at 5:12 PM.

Respectfully submitted by Courtney Warren



Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Drinking Water Program

Consumer Confidence Report Certification

For calendar year 2023

A. PWS Information

Important: When filling out forms on the computer, use only the tab key to move your cursor – do not use the return key.



PROVINCETOWN WATER DEPT

PWS Name

PROVINCETOWN

City / Town

The community water system named above hereby certifies that its Consumer Confidence Report (CCR) was distributed to customers, appropriate agencies, and notices of availability have been given in compliance with 310 CMR 22.16A. Furthermore, the system certifies that the information contained in the report is correct and consistent with the compliance monitoring data previously submitted to MassDEP.

I certify under penalty of law that I am the person authorized to fill out this form and the information contained herein is true, accurate, and complete to the best of my knowledge and belief.

PWS ID 4242000

SUMMER- 25,000

Max population

CODY J. SALISBURY

Name

SUPERINTENDENT

Title

508-487-7060

Phone

CSALISBURY@PROVINCETOWN-MA.GOV

5/21/24

Date

Signature of Owner/Responsible Party or Certified Operator

B. Public Notice Certification

VSS PWS note: If you deliver your CCR by newspaper or postings, that method will not meet PN requirements. You must directly deliver your PN by hand, land, or electronic.

Is this system using this CCR to provide Tier 3 Public Notice to their customers? ☒ Yes ☐ No

The PN is for a: Violation ☐ UCMR ☒ Other ☐

List other

Did you have a consultation with MassDEP? ☐ Yes ☒ No

Consultation date

The PN can be found on page 4 of the CCR.

Date of PN Occurrence NON Number

☐ I am reporting multiple Tier 3 PNs. I have listed the additional PN information at the end of this form.

The public water system indicated above hereby affirms that a Tier 3 public notice has been provided within this CCR to consumers in accordance with 310 CMR 22.16(4) including: delivery, content, format requirements, notification deadlines, and that the public water system will meet future requirements for notifying new billing units and new customers of the violation.

If you did not sell water to another community PWS skip Section C.

C. For Systems Selling Water to Other Community Water Systems

☐ My system delivered the applicable information required at 310 CMR 22.16A(3), to the buying system(s) no later than April 1st of this year, or by the mutually agreed upon date specifically included in a written contract between the parties.

D. Annual Cross Connection Education

Is this CCR being used for your system's annual cross-connection education? ☒ Yes ☐ No
If no, what methods did you use to meet your annual CCCP requirements (citation)?

Continued on next page

ALL distribution (posting, land mail, or e-delivery, publication, and good faith efforts) must be completed on or before July 1st.

Instructions for customers to request a hard copy must also be included in e-delivery.

When a URL is used it must be a *direct* link to the document; no other clicks allowed.

E. Consumer Delivery Methods – Based on Population Served

For systems serving fewer than 500 persons:
(Choose #1 or #2)

Date of delivery/publication:

- ☐ 1. My system used one or more of the following methods to notify customers that their CCR would not be mailed directly to them but is available to them upon request. (the notice is attached)

☐ Land-mail ☐ Door-to-door ☐ Newspaper ☐ eMail ☐ Posted notices

Locations of posted notices

- ☐ 2. My system provided a CCR to each customer by the following method(s):

☐ Published the full CCR in a local newspaper (the published report from newspaper is attached).

☐ Land-mailed or hand-delivered the CCR to consumers.

☐ e-Mailed with the CCR either embedded in the email or attached as a PDF. (e-mail is attached)

☐ Posted the CCR on the web and sent the direct URL to customers by way of land-mail or email (notice/postcard is attached).

List URL

For systems serving 500 to 9,999 persons:
(Choose either #1 or #2)

Date of delivery/publication:

- ☐ 1. My system provided a copy of the CCR to each customer by:

☐ Land-mail ☐ e-Mail with PDF of CCR ☐ e-Mail with embedded CCR

☐ Sent a notice (by land or e-mail) containing a *direct* URL to customers (copy is attached)

List the URL if used.

- ☐ 2. My system provided the CCR to each customer by publishing the full report in a newspaper (a copy of the published CCR is attached) and provided notice to consumers of this action by either:

☐ Published a notice of this in a local newspaper

☐ Land mailed a notice of this to consumers.

☐ e-Mailed a notice of this to consumers.

For systems serving 10,000 or more persons:

Date of delivery/publication:

- ☐ My system provided a copy of the CCR to each customer by:

☐ Land mail ☐ e-Mail with PDF ☐ e-Mail with embedded CCR

☒ Sent a notice (by land or e-mail) containing a *direct* URL to customers

<http://www.provincetown-ma.gov/DocumentCenter/View/6075>

List the URL if used.

- ☐ For systems serving greater than 100,000 population: In addition to one of the delivery methods checked above, we have posted the CCR on a publicly accessible Internet site as required.

www.

List the URL used

F. Good Faith Delivery Methods (minimum of 3 is required for any sized systems)

Good Faith efforts are in addition to your primary method of delivery.

To reach people who drink our water but are not billed customers the following were conducted in addition to the required delivery:

- ☐ Posted the CCR on a publicly accessible Internet site at the following address. (Only for systems under 100,000 population who did not use this method as their primary method)

www.

List the URL used.

- ☐ Mailed the CCR to all postal patrons within the service area (list of zip codes used is attached).

- ☐ Mailed a postcard listing the URL where the CCR can be found, to all postal patrons within the service area (list of zip codes used is attached).

www.

List the URL used.

- ☒ Advertised availability of the CCR in the following news media (the announcement is attach):

☒ Radio ☐ Newspaper ☐ Television / cable ☐ Social media ☐ Digital signboard

- ☐ Published the CCR in local newspaper (attach the published CCR).

- ☒ Posted the CCR in public places i.e., post office, town hall, library (list of locations is attached).

- ☒ Delivered multiple CCR copies to single-bill addresses serving several persons i.e., apartments, businesses, large private employers (list of locations is attached).

- ☐ Delivered multiple CCR copies to community organizations (list of organizations is attached.)

- ☐ Posted the CCR or a notice of availability at locations within the apartment/condo complex (list of the locations is attached).

- ☐ Deliver CCR to new residents when they move in.

☐

Other

G. Mandatory Agency Delivery Requirements

All systems must submit CCR to these three agencies

- ☒ 1. Local Board of Health

Deliver 1 copy of CCR and the Certification Form (Contact your board of health as to whether they would prefer hardcopy or e-delivery of CCR.)

5/21/24
Date completed

- ☒ 2. MA Dept. of Public Health

Deliver 1-copy of CCR and the Certification Form

☒ PDF emailed to: dph.ccr@massmail.state.ma.us

or

☐ Hardcopy to: 250 Washington St.; Boston, MA 02108

5/21/24
Date completed

- ☒ 3. MassDEP Boston Office*

Deliver 1 copy of CCR, the Certification Form, and all needed attachments

☒ PDF emailed to: Program.Director-DWP@state.ma.us.

Label it [PWSID-PWS Name-year-CCR]

or

☐ Hardcopy to: MassDEP-CCR Program, 1 Winter St. -5th Fl.; Boston, MA 02108

5/21/24
Date completed

Agencies and consumers must receive CCR on or before July 1.

For e-delivery, scan documents into 1 PDF file. Make sure Cert Form is first with CCR following it.

*Because of COVID-19 restrictions, the preferred delivery method is email

--Do not send to MassDEP regional offices--
Only Boston is accepting CCRs



2023 Annual Drinking Water Quality Report for the Provincetown Water Department

The Provincetown Water Department is proud to provide you with the Year 2023 Annual Drinking Water Quality Report. Our objective is to help keep you abreast of ongoing and upcoming water system projects; local, state and federal drinking water regulations; and Provincetown's annual water quality results. The Provincetown Water Department is committed to supplying our customers with high-quality drinking water 24 hours a day, 365 days a year. The Town of Provincetown Public Water System DEP identification number is 4242000.

Customer Views and Questions

Please call the Water Department at 508-487-7060 with any questions, concerns, or problems regarding your water service (billing, water quality, meters, leaks, policies); or the water system (water main breaks, fire hydrants, upcoming activities). Our staff of drinking water professionals is here to assist you:

Water Superintendent Cody J. Salisbury
Director of Public Works Jim Vincent

The Water Department office is located within the Department of Public Works at 2 Mayflower Street, Room 74 in Provincetown. The business hours are Monday through Thursday 7 a.m. until 4 p.m. and Friday 7 a.m. until 11 a.m. Supplemental information about the Water Department including Rules and Regulations for water service can be found on our website: www.provincetown-ma.gov. This report is also available on the Town's website, at the Provincetown and Truro Public Libraries, and at the Water Department offices.

The Provincetown Water Department is governed by the Provincetown Water & Sewer Board, which meets at the Veterans Memorial Community Center, 2 Mayflower Street, Provincetown. The public is invited. You may contact the Water Department or check the Town website for a meeting schedule. In addition to these local resources, additional information about drinking water quality and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline: 800-426-4791.

Water System Information

The Provincetown Water Department supplies drinking water to the Town of Provincetown and several areas within the Town of Truro. Provincetown's water supply sources consist of three wellfields located in the Pamet Lens of the Cape Cod Aquifer. The Pamet Lens extends from the north side of the Pamet River to East Harbor. The sources include the South Hollow Wellfield (4242000-03G), consisting of six active individual wells, the Knowles Crossing Wellfield (4242000-02G), consisting of three individual wells, and North Union Field (4242000-06G & 07G), consisting of two individual wells. The Town of Provincetown also has two additional wells (4242000-04G & 05G) for an emergency supply. These wells are located at the former North Truro Air Force Base which now lies within the boundaries of the Cape Cod National Seashore. Groundwater pumped from the Knowles Crossing Wellfield and Paul Daley Wellfield is treated at the Knowles Crossing Water Treatment Facility. Treatment at this facility consists of membrane filtration for iron and manganese removal, disinfection, and pH adjustment. Groundwater pumped from the North Union Field Wells is treated at the South Hollow Corrosion Control Facility for disinfection and pH adjustment.

All reservoirs and some ground water sources contain numerous microorganisms, some of which can cause people to be sick. To eliminate disease carrying organisms it is necessary to disinfect the water. Disinfection does not sterilize the water, but it does destroy harmful organisms. Sterilization kills all microorganisms, even though most are not harmful, and is too costly to use on a routine basis. The Provincetown Water Department uses sodium hypochlorite as its primary disinfectant. Chlorine destroys organisms by penetrating cell walls and reacting with enzymes. Disinfection with chlorine has proven effective at ensuring that water is free of harmful organisms and safe to drink.

Many drinking water sources in New England are naturally corrosive (i.e. they have a pH of less than 7.0). So, the water they supply has a tendency to corrode and dissolve the metal pipe it flows through. This not only damages pipes but can also add harmful metals, such as lead and copper, to the water. For this reason it is beneficial to add chemicals that make the water neutral or slightly alkaline. This is done by adding any one, or combination of several, approved chemicals. The Provincetown Water Department adds potassium hydroxide to its water. This adjusts the water to a non-corrosive pH. Testing throughout the water system has shown that this treatment has been effective at reducing lead and copper concentrations.



Iron and manganese are often present in groundwater at levels that can discolor the water, or cause it to take on unpleasant odors or tastes. Even though the water may still be safe to drink, it is preferable that the iron and manganese be removed. Removal generally requires a two-step process of oxidation and filtration. Oxidation is accomplished by adding potassium permanganate to the water. This causes the iron and manganese to form tiny particles. Once this happens, the water passes through special filters consisting of a material that is specifically designed to capture iron and manganese particles. Over time, filters start to clog and need to be cleaned using a high flow backwash process.

All chemicals used for oxidation, disinfection and pH adjustment, are approved by one of the following organizations: National Sanitation Foundation (now known as NSF International), or UL, both accredited by the American National Standards Institute (ANSI). Chemicals also have to meet performance standards established by the American Water Works Association.

Water from the Paul Daley Wellfield is delivered to the Knowles Crossing Treatment plant through a 10-inch raw water transmission main on Route 6. Treated water is pumped into the water distribution network and delivered through a 12-inch transmission main traveling from South Hollow Road and along Shore Road in North Truro to the Provincetown town line. The water distribution system is made up of approximately 45 miles of pipe of varying size between 4-inches and 16-inches in diameter, 675 gate valves, and 250 fire hydrants. The water distribution system also includes two water storage tanks: the Mt. Gilboa tank in the east end of Provincetown which has a capacity of approximately 2.7 million gallons; and the Winslow Street tank located adjacent to Veteran's Memorial Community Center which has a capacity of 3.8 million gallons. Together these water storage tanks provide water during peak hourly water demands and for fire protection.

Cross-Connection Control

A cross-connection is an existing or potential connection through which drinking water could be contaminated or polluted due to a backflow or backsiphonage. Regulations are specific as to the water supplier's and water user's responsibilities regarding cross-connection protection. The water supplier has the responsibility to prevent contamination of the water system from the source to the user's connection, and the user is responsible for keeping contaminants out of the water system from their connection. Common cross-connections are heating, cooling, fire protection, and irrigation systems. Garden hoses are a common source of cross-connection at our homes as they are often contaminated with soaps, cleaning chemicals, fertilizers, pool water, etc. The Provincetown Water Department recommends the installation of backflow prevention devices, such as a low cost hose bib vacuum breaker, for all inside and outside hose connections. You can purchase this at a hardware store or plumbing supply store.

The Provincetown Water Department maintains a DEP-approved cross-connection program whereby all industrial, commercial, and institutional premises are surveyed for cross-connections and, when identified, mandates their elimination or the installation of appropriate cross-connection control device(s). For more information regarding cross-connection control, contact Cody J. Salisbury at the Provincetown Water Department.

Source Water Assessment and Protection

The Source Water Assessment and Protection (SWAP) program assesses the susceptibility of public water supplies to potential contamination by microbiological pathogens and chemicals. A susceptibility ranking of high was assigned to this system using information collected by the DEP. Pesticide storage and use, gas stations, junk yards and salvage yards, military facilities, and underground storage tanks were identified as sources of potentially significant contamination located within the source water areas. For more information, contact Cody J. Salisbury. The complete SWAP report is available at the Water Department Office, 2 Mayflower Street, Room 74 or on the website <http://www.mass.gov/dep/water/drinking/4242000.pdf>.

Public Health and Drinking Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include: **Microbial Contaminants**, such as viruses, and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. **Pesticides and Herbicides**, which may come from a variety of sources such as agriculture, urban stormwater run off, and residential uses. **Inorganic Contaminants**, such as salts and metals, which can be naturally-occurring or result from urban stormwater run off, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming. **Organic Chemical Contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater run off, and septic systems. **Radioactive Contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the Department and EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and the Massachusetts Department of Public Health regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water

Disinfectant and Disinfection By-Products

Contaminant (units)	Date(s) Sampled	Highest Annual Average	Range of Detection	MCL	MCLG	Typical Source(s) of Contaminant	Violation Y/N
Chlorine (ppm)	2023	0.91	0.30 – 1.26	MRDL=4	MRDLG=4	Water additive used to control microbes	N
Halooacetic Acids (HAA5) (ppb)	2023, August	0.45	0 – 1.78	60	N/A	By-product of water chlorination	N
Total Trihalomethanes (TTHMs) (ppb)	2023, August	6.7	4.4 – 12	80	N/A	By-product of water chlorination	N

Lead and Copper

Contaminant (units)	Date(s) Sampled	90 th Percentile	Action Level	MCLG	# of Sites Sampled	# of Sites above the AL	Typical Source(s) of Contaminant
Copper (ppm)	2023	0.33	1.3	1.3	30	0	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2023	2	15	0	30	3	Corrosion of household plumbing systems; erosion of natural deposits

Unregulated Contaminants

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. **In 2023 Provincetown Water Department participated in the fifth round of the Unregulated Contaminant Monitoring Rule (UCMR 5). For a copy of the results please call Cody J. Salisbury at 508-487-7060.**

Contaminant (units)	Date(s) Sampled	Highest Level Detected	Range of Detection	Average Detected	SMCL	Health Advisory	ORSG	Typical Source(s) of Contaminant
Chloroform (ppb)	2023, July	2.10	1.9 – 2.10	2.0				By-product of water chlorination (regulated collectively with total trihalomethanes, TTHMs) In non-chlorinated sources, chloroform may be naturally occurring.
Manganese (ppb)	May 2023	.5	0 - 5	5	50		300	Natural sources as well as discharges from industrial uses; Use of water containing manganese at concentrations above the secondary MCL may result in aesthetic issues including the staining of laundry and plumbing fixtures and water with an unpleasant bitter metallic taste, odor, and/or black-brown color.
Sodium (ppm)	2021	30	17 – 30	24			20	Natural sources; run off from use as salt on roadways; by-product of treatment process

Health Effects Statement - Sodium: Sodium sensitive individuals, such as those experiencing hypertension, kidney failure, or congestive heart failure who drink water containing sodium should be aware of the sodium levels where exposures are being carefully controlled.

Definitions:

90th %tile Out of every 10 homes, 9 were at or below this level.

MCL Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs (see below) as feasible using the best available treatment technology.

MCLG Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL Maximum Residual Disinfectant Level: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for the control of microbiological contamination.

MRDLG Maximum Residual Disinfectant Level Goal: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

ppm One part per million.

ppb One part per billion.

AL Action Level: The concentration of a contaminant that, if exceeded, triggers treatment or other requirements, which a water system must follow.

NR Not regulated (currently there is no MCL for this compound).

N/A Not applicable.

ND Not detected. Refers to the detection limit of the chemical analysis instrument or procedure.

TT Treatment Technique. A required process intended to reduce the level of a contaminant in drinking water.

pCi/l Picocuries per liter (a measure of radioactivity).

ORSG Massachusetts Office of Research and Standards Guideline. This is the concentration of a chemical in drinking water at or below which adverse health effects are unlikely to occur after chronic (lifetime) exposure. If exceeded, it serves as an indicator of the potential need for further action.

SMCL Secondary Maximum Contaminant Level: These standards are developed to protect the aesthetic qualities of drinking water and are not health based.

from their health care providers. EPA/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791); Web page www.epa.gov/safewater or the Massachusetts DEP (Southeast Regional office 508-946-2700; Web page www.state.ma.us/dep).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Provincetown Water Department is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water is sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Water Quality Summary

The Water Department is committed to providing our customers with the highest quality drinking water that meets or exceeds Mass DEP drinking water standards and performs regular sampling (monthly or more frequently) throughout the distribution system to monitor water quality. Over the course of the year the Water Department performs over 1,000 water quality analyses, testing for more than 120 different contaminants, to ensure that our water meets these standards.

The following table lists all the drinking water contaminants that were detected during the 2023 calendar year or during the most recent sampling period within the past five years. These were the only contaminants detected in all the monitoring required by the state. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done from January 1 through December 31, 2023. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old. For those contaminants, the date of the last sample is shown in the table.

Regulated Contaminants

PFAS6 (PFOS, PFOA, PFHxS, PFNA, PFHpA, PFDA)

Contaminants	Date(s) Sampled	Highest Level Detected	Range of Detection	MCL	MCLG	Typical Source(s) of Contaminant	Violation Y/N	Health Effects
PFAS6	2022	0	0	20	0	Discharges and emissions from industrial & manufacturing sources associated with the production of PFAS, including production of moisture & oil resistant coatings on fabrics & other materials. Additional sources include the use and disposal of products containing PFAS, such as fire-fighting foams.	N	Some people who drink water containing these PFAS in excess of the MCL may experience adverse effects. These could include effects on liver, blood, immune system, thyroid, and fetal development. These PFAS may also elevate risk of certain cancers.

INORGANIC CONTAMINANTS

Contaminant (units)	Date(s) Sampled	Highest Level Detected	Range of Detection	MCL	MCLG	Typical Source(s) of Contaminant	Violation Y/N
Nitrate (ppm)	2023, July	0.62	0.18 – 0.62	10	0	Run off from fertilizer; leaching from septic tanks; sewage; erosion of natural deposits	N
Barium (ppm)	2021	0.0067	0.0034 – 0.0067	2	2	Discharge from drilling wastes; Discharge from metal refineries; Erosion of natural deposits	N

ORGANIC CHEMICAL CONTAMINANTS

Contaminant (units)	Date(s) Sampled	Highest Level Detected	Range of Detection	MCL	MCLG	Typical Source(s) of Contaminant	Violation Y/N
Tetrachloroethylene (ppb)	2023, August	1.3	0 – 1.3	5	0	Leaching from vinyl lined asbestos cement pipe	N

RADIOACTIVE CONTAMINANTS

Radioactive Contaminants	Date(s) Sampled	Highest Level Detected	Range of Detection	MCL	MCLG	Typical Source(s) of Contaminant	Violation Y/N
Gross Alpha Activity (pCi/l)	2021	0	0	15	0	Erosion of natural deposits	N
Radium 226 & 228 (pCi/l)	2021	0.20	0 – 0.20	5	0	Erosion of natural deposits	N

TOWN OF PROVINCETOWN

Department of Public Works
Buildings & Grounds Division
Engineering Division
Highway Division
Sanitation Division
Transfer Station/Recycling Center
Water & Sewer Division



Veterans Memorial Community Center

2 Mayflower St., Room 74
Mail: 260 Commercial Street
Provincetown MA 02657
Phone: 508.487.7060
FAX: 508.487.4675

<http://www.provincetown-ma.gov>

May 8, 2024

WOMR-FM Radio 92.1
494 Commercial Street
Provincetown MA 02657

By Facsimile to 508-487-5524

We are requesting that you please make the following public service announcement daily, for five days beginning May 22, 2024. Thank you very much.

Kristen Sebastian
Administrative Assistant

Please know that the Provincetown Water Department has published its 2023 Annual Drinking Water Quality Report. A copy of the report can be requested by contacting the Provincetown Water Department at 508-487-7060. Notification of a website link to the report was mailed to all Provincetown Water Service accounts on May 20, 2023. The report is posted at the town's web site at: www.provincetown-ma.gov/DocumentCenter/View/6075 .

If you have any questions, please contact the Provincetown Water Department at 508 487-7060.

2023 Consumer Confidence Report

Distribution List, 10 each.

Truro Town Hall
Truro Public Library
Truro Community Center

Province Landing, 90 Shank Painter Rd
Community Housing Resources, Conwell St
Seashore Point, 100 Alden St
Harbor Hill, Provincetown Year Round Housing Trust, Harbor Hill Rd & 37 Bradford Extension